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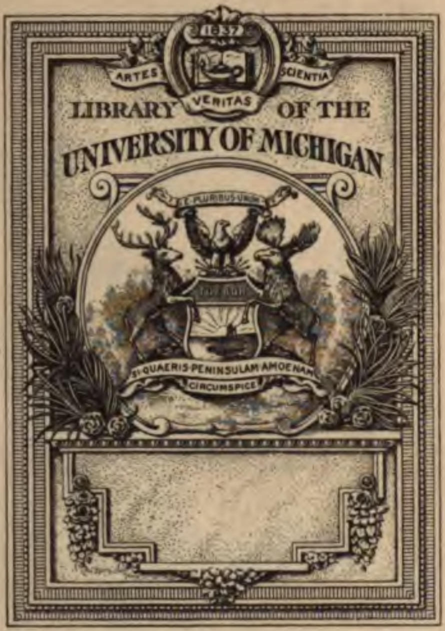

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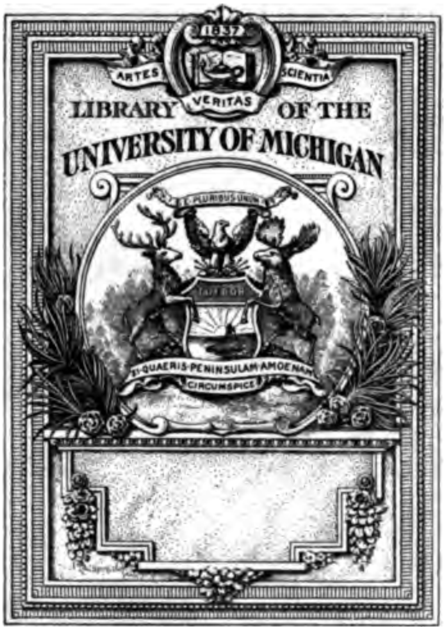
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THE

NORTH AMERICAN

MEDICAL AND SURGICA

JOURNAL.

The Publisher begs leave to remind the Subscribers to this Journal, that the terms of payment being in advance, the Subscription money for the ensuing year should be transmitted by the first of January next. Those Subscribers who wish the work continued, are earnestly requested to attend to this notice, in order to prevent delays in the transmission of their Numbers.

VOL. IV.

PHILADELPHIA:
PUBLISHED BY J. DOBSON, AGENT.
JESPER HARDING, PRINTER.

1827.

THE

NORTH AMERICAN
MEDICAL AND SURGICAL
JOURNAL.

CONDUCTED BY

HUGH L. HODGE, M. D. | CHAS. D. MEIGS, M. D.
FRANKLIN BACHE, M. D. | B. H. COATES, M. D.
AND
R. LA ROCHE, M. D.

NON DOCTIOR, SED MELIORE IMBUTUS DOCTRINA.

VOL. IV.

PHILADELPHIA:
PUBLISHED BY J. DOBSON, AGENT.
JESPER HARDING, PRINTER.

1827.

Eastern District of Pennsylvania, to wit:

Be it remembered, that on the 6th day of October, in the 52nd year of the Independence of the United States of America, A, D. 1827, Hugh L. Hodge, Franklin Bache, Charles D. Meigs, Benjamin H. Coates, and René La Roche, of the said District, have deposited in this office the Title of a Book, the right whereof they claim as Proprietors, in the words following, to wit:

"*The North American Medical and Surgical Journal. Conducted by Hugh L. Hodge, M. D., Franklin Bache, M. D., Chas. D. Meigs, M. D., B. H. Coates, M. D., and R. La Roche, M. D. Non doctior, sed meliore imbutus doctrina. Vol. IV.*"

In conformity to the Act of Congress of the United States, entitled, "An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies during the times therein mentioned;"—and also to the Act intitled "An act Supplementary to an Act, intitled, An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned, and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

D. CALDWELL, Clerk of the Eastern District of
Pennsylvania.

PREFACE

TO THE FOURTH VOLUME.

The Editors beg leave to explain, more fully than they have heretofore been permitted to do, the circumstances under which they have acted as conductors of this work.

Several years ago, an Association of American Physicians was founded by the zealous and philanthropic exertions of Dr. Samuel Brown, late Professor of Medicine in Transylvania University. This Institution, under the title of the Kappa Lambda Association of the United States, was intended to be co-extensive with the Union, and accordingly, its branches, which, in the progress of this design, have been established in various parts of the country, acknowledge a mutual connexion.

Not being charged to make any special communications on this subject, the Editors restrict themselves to the general announcement, that the objects of the Institution are to elevate the character of the Medical Vocation, by inculcating a higher standard of excellence, not merely in the professional or ministrative, but also in the ethical relations and duties of physicians.

As one of the methods of attaining these useful ends, the Philadelphia K Λ Society, from its central position, was entrusted with the publication of a Medical

Journal, which, guaranteed as to its principles, by the good feelings of a large body of physicians, might operate usefully among the Societies, and the profession at large,—combine, in a more didactic form, the scattered elements of knowledge, and disseminate more widely, in Reviews and Summaries of Intelligence, the means of perfecting the healing art.

This Journal is the fruit of the authority thus delegated to the Philadelphia Society. It was committed to the direction of a publication committee, consisting of the present Editors, who, in the discharge of their duties, have now conducted it to the termination of the fourth volume.

The subscriptions have been so encouraging as to render the work no longer a doubtful experiment. The abundant resources for its support, and the sanctions under which the editorial department is administered, afford the surest ground of confidence in its permanency and continued usefulness.

The circulation of the Journal amongst distinguished conductors of periodical works on Medicine in various countries of Europe, has been the means of attracting to its essays the regard of those gentlemen, evinced in a most flattering manner, by frequent extracts and republications from its pages,—circumstances, to which the Editors deem it not improper to call the attention of those readers who may have occasion to select a medium for the publication of their scientific researches.

We have given in another page a catalogue of Journals received in exchange, for the purpose of indicating our resources in the matter of Intelligence; and, as these are copious and good, it need not be doubted that our friends will be regularly notified of almost all that is new and interesting to them as professional men: it is manifest that these exchanges give us the means of recording, either in detail or in brief, the whole march of the science, wherever it is successfully cultivated.

The following papers from this Journal, have been either republished entire, or very fully noticed: *Review of Derheims on Leeches; Biography of M. Beclard*, in the London Quarterly Journal of the Medical Sciences, Vol. III. *On the Use of the Oil of Turpentine in a particular condition of Fevers, by George B. Wood, M. D.*, in the Medical and Physical Journal of London. *Review on Medical Education; Rare case of Twins, by J. Trotti; History of the Natural and Modified Small Pox, or of the Variolous and Varioloid Diseases, as they prevailed in Philadelphia, in 1823 and 1824, by John K. Mitchell, M. D. and John Bell, M. D.; Remarks on the Pathology and Treatment of Yellow Fever, by J. A. Monges, M. D.; Obstinate Intermittent Fever, cured by the extraction of several carious teeth, by Dr. Pascalis; Ovarian Abscess, by Othniel Taylor, M. D.; Intermittent Paralysis, by J. A. Monges, M. D.; Sincipital Cephalalgia cured by the Extraction of a carious tooth, from Dr. Pascalis' paper; Salivation cured by Tartarised Antimony, by J. B. Findlay, of Bainbridge, Ohio*,—in the Journal des Progrès des Sciences et Institutions Médicales, Vol. I. II. and III. *Observations on a change of Climate, in Pulmonary Consumption, by Henry Huntt, M. D.; Description of an Epidemic near Savannah, by William R. Waring, M. D.*, in the Revue Médicale, Vol. III. *Description of the Gangrenous Ulcer of the mouths of Children, by B. H. Coates, M. D.*, in the Medico-Chirurgical Review, new series, No. 10.

The historical *Account of Dr. Physick's Operation for Artificial Anus*, has been transferred to the London Medical Repository and Review, Vol. IV.; and to the Journal des Progrès des Sciences et Institutions Médicales, Vol. III. *Dr. John Rhea Barton*, on *the Treatment of Anchylosis by the formation of Artificial Joints*, has been copied into the London Medical and Physical Journal, Vol. III.; and the Journal des Progrès, *&c.* Vol. III.; and the Medico-Chirurgical Review, No. 13, New Series. The *Account of a case of Ovarium, successfully extirpated by Alban G. Smith, M. D. of Danville, Kentucky*, with other cases and remarks, will be found in the London Medical Repository and Review, Vol. III. and the Journal des Progrès, &c.; the London Medical and Physical Journal, the Journal Universel des Sciences Médicales, and the Medico-Chirurgical Review, No. 10.

Dr. Thomas Harris's paper on the Non-Mercurial Practice in Syphilis, has been translated and inserted in the Journal des Progrès, &c. Vol. I.; and in the Archives Génerales de Médecine, Vol. XII. *Dr. La Roche's Cases and Remarks, illustrating the Use of the Balsam of Copaiva in Bronchitis*, is to be found under the head of Original Communications in the London Medical and Physical Journal, Vol. II., New Series, and in the Journal Universel des Sciences Médicales, Vol. XLVI. The *Account of a Child which took Stramonium, by C. D. Meigs, M. D.*, is republished in the Journal des Progrès, &c., the Archives Génerales de Médecine, and the Revue Médicale.

The several numbers of the Journal have been reviewed in succession in Broussais's Annales de la Médecine Physiologique, and noticed in terms too commendatory for us to inscribe here, in the Revue Encyclopédique.

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THE
NORTH AMERICAN
Medical and Surgical Journal.

JULY, 1827.

ORIGINAL COMMUNICATIONS.

ARTICLE I.—*An Account of the Yellow Fever which prevailed at Thompson's Island, in the year* 1824. By BENJAMIN TICKNOR, M. D., U. S. N.

[Concluded from page 233, vol. III.]

TREATMENT.

THE indications which directed the treatment, were drawn from the four periods or stages of the disease, and were, therefore, *First*, to put a stop to the cold stage, or stage of torpor; *Second*, to moderate re-action or excitement, when excessive, and thus produce a remission; *Third*, to prolong the remission, and either prevent a recurrence of the excitement, or render it less violent and of shorter duration; and, *Fourth*, to promote convalescence, when a tendency to a favourable termination was manifested, and to obviate the particular symptoms, which indicated a tendency to dissolution.

First. It rarely happened that I saw the patient soon enough after the attack to make use of any means for answering this indication; and when I had an opportunity, I was restricted to very few remedial agents by the great irritability of the stomach. The most effectual were a mercurial cathartic, and blisters or sinapisms. The cathartic consisted commonly of a scruple of calomel, which was found to be easy for the stomach and effectual in its operation. When given sufficiently early, and aided by a large epispastic, or sinapism, immediately applied over the epigastrium, it seldom failed to rouse the torpid powers of the system, and bring on the stage of re-action. In all cases where the gastric irritability was considerable, these were the only means which possessed any degree of efficacy in cutting short the cold stage; but where there was an absence of all the symptoms, which indicate the actual presence or near approach of inflammation of the stomach, and where there was an incessant vomiting of bilious matter, accompanied with a sense of oppression in the epigastrium, I had recourse to emetics, and derived essential benefit from their operation. To those who have proscribed the use of emetics indiscriminately in yellow fever, this practice may appear highly reprehensible; but as I determined, when circumstances should require me to undertake the management of this formidable disease, to be governed by the symptoms as they might present themselves, rather than by any preconceived opinions, drawn from the speculations or experience of others; so, whenever I found emetics to be clearly indicated, I prescribed them without the least hesitation, and never had occasion to regret that I had done so. I need hardly observe, that a good deal of caution was necessary in prescribing them; for it was only in those cases, where there was reason to expect that the benefit resulting from unloading the stomach of its irritating contents, would counterbalance the irritation likely to be produced by the remedy, that emetics were admissible. Their good effects, in these cases, consisted, not in wholly arresting the progress of the disease, as they sometimes do in other febrile complaints; but in checking the vomiting, relieving the oppression at the stomach, and in causing a determination to the surface; thus, not only abridging the stage of torpor by inducing re-action, but also preparing the way for the more expeditious and effectual operation of the means for fulfilling the other indications.

Second. Re-action having taken place either spontaneously, or in consequence of the means which have been mentioned, it generally ran so high as to require depleting measures. Of these, venesection was the first and most effectual; and few cases occurred in which it was not required. Wherever I found a tense, wiry pulse, however small it might be, accompanied with burning tenderness and oppression in the epigastric region; violent head-ach, with red, protuberant eyes, and a tumid, flushed countenance; a hot, florid, and dry skin; I had immediate recourse to the lancet, and used it freely. My rule was, to allow the blood to flow till manifest relief was experienced from all the urgent symptoms above mentioned. But the quantity which it was necessary to take to accomplish this, varied according to the circumstances attending the operation. When drawn in a full stream, from a large tense vein, and while the patient was in a standing or sitting posture, the loss of from sixteen to twenty-four ounces generally afforded the desired relief. It was only at that period of the disease, however, when re-action had just reached its height, that venesection was productive of this decided benefit. Indeed, it was only at this time, that it could be employed with safety; for if the disease continued its course, the powers of the system were very soon exhausted to such a degree, that a loss of blood, instead of retarding or averting, accelerated the patient's doom. A large bleeding, at the moment when the ardour of the febrile conflict had reached its height, seldom failed to calm the commotion of the system, and to prevent an unnecessary waste of the vital energy, by moderating the violence of re-action. To obtain the greatest degree of benefit from venesection, it was indispensably necessary to carry it so far at first as to make a sensible impression upon the disease, that is, till all the urgent symptoms, proceeding from the excess of re-action, disappeared; for if these salutary effects were not produced by the first, they never could be by any subsequent bleeding, the system becoming in a short time too much prostrated to admit of a further abstraction of blood. When I had an opportunity of seeing the patient sufficiently early in the disease, I rarely had occasion to bleed more than once; and by this one bleeding I was so fortunate in a few instances as completely to arrest its progress. But in almost every case, the symptoms of re-action returned after a longer or shorter interval of remission, and sometimes they became so violent as to require a repetition of the bleeding. In these instances, it was necessary to be more cautious in the use of the lancet, and the benefit resulting from it was comparatively small. Bleeding could not be safely employed later than the third day of the disease, and its good effects were seldom very apparent after the second. Although the efficacy of this remedy consisted principally in its moderating the violence of re-action; yet it extended beyond this, and was manifested in the greater susceptibility of the system to the action of other remedies. The operation of cathartics, in particular, was facilitated and rendered more effectual by an early and free use of the lancet.

Next to blood-letting, in controlling the immoderate efforts of the system, was an evacuation of the contents of the intestinal canal. These consisted of vitiated bilious and intestinal secretions, which were poured forth in great abundance, and when suffered to accumulate, always increased the ardour of the febrile flame. The purgative which I found to remove these irritating matters most effectually, and at the same time with the least uneasiness to the patient, was calomel. This was peculiarly adapted to the irritable state of the stomach, which, in almost every case, especially during the period of re-action, prevailed to such an extent as to render every other purgative inadmissible. I never gave less than a scruple of calomel for a dose, and frequently more; which was almost always retained even by the most irritable stomach, and in the course of five or six hours produced free evacuations. The first discharges were always black, and sometimes so acrid as to cause excoriation. By removing from a most sensitive part of the system so powerful a cause of irritation, the vomiting received a further check, and the cardialgia and oppression in the epigastrium were further mitigated, after venesection had been carried to a sufficient extent; for, although a sanguineous depletion may have reduced the general excitement within proper limits, and afforded great relief from the gastric disturbance; yet a considerable degree of the latter remained, which could only be further relieved by free evacuations from the bowels. Thus the efficacy of calomel as an adjuvant to the lancet, where the latter had been employed with the greatest benefit, was very conspicuous; but it was still more so in those cases where a free abstraction of blood was inadmissible, or where bleeding was prohibited altogether. Here calomel, by causing a free depletion from the intestinal canal, was the most ffectual agent that could be employed, to restrain re-action within due bounds. Its effects in these cases were similar to those of blood-letting, where it was beneficially employed, though a longer time was required for them to become manifest. While the bowels were freeing themselves from their irritating contents, the temperature of the body approached the healthy standard; the gastric derangement abated; the pulse became fuller, more free, and less frequent; the head-ach, as well as the general distress, was relieved; and finally, a great change was manifested in all the functions of the system. But as there was a *copious flow* of vitiated secretions into the intestinal tube in all cases, and at every period of the disease, particularly during the stage of re-action, a frequent repetition of the calomel became necessary. In some instances, two or three scruple doses were given in a day; but, in general, one such dose during the period of excitement, especially if the patient had been freely bled, was sufficient. The frequency of repetition, however, as well as the quantity of the dose, was determined by the appearance of the stools, and the relief they afforded. But as the change in the colour of the *stools* never took place while the calomel acted merely as a purgative, but occurred only after the period for employing it with the view of fulfilling the second indication had passed by; I shall defer speaking of its effects as an alterative, till I come to the third indication, and, in the mean time, shall notice the other means which were employed for reducing inordinate excitement. These were *cold aspersion* and *blisters*. Whenever the skin became hot and dry, and continued so for a little time, I directed the patient to be universally sponged with cold water, or cold vinegar and water; and this was repeated every hour or two, while the heat of the body continued above the healthy standard. In one case I was induced, by the violence of re-action, to have recourse to affusion, with the view of making a sudden impression on the disease; and accordingly the patient was stripped naked, and one or two buckets full of cold water, (that is, water whose temperature had not been raised by artificial heat,) were dashed over him, and he was then wrapped in a sheet taken out of a tub of water; after which he was wiped dry and put to bed. The effects were quite different from those I had anticipated, and such as to prevent me afterwards from employing cold water externally in any other way than by sponging. This was always refreshing, and, when often repeated, generally kept the temperature from rising far above its natural grade. Thus excitement was lessened, and consequently cold aspersion exerted considerable agency in calming that agitation of the system, which re-action always produced, when it exceeded certain salutary bounds.

Blisters and sinapisms are to be considered among the means for answering the second indication, although they were not employed with this particular view. The purpose for which they were principally used, was to allay the gastric irritation and the painful sense of oppression in the epigastric region. But in answering this purpose, their beneficial influence was indirectly felt throughout the whole system; for, as the general excitement depended in some degree upon the irritable state of the gastric organs, an abatement of this local irritation was followed by a corresponding reduction of the general excitement. After the patient had been once freely bled, and a suitable dose of calomel given, I had a large blister or sinapism applied over the epigastrium, which rarely failed to afford at least a temporary relief from the symptoms, both local and general, depending on derangement of the stomach; for some disorder of this viscus still remained in almost every case, whatever may have been the good effects of venesection and calomel. The utility of epispastics chiefly consisted in diverting the force of the disease from those internal organs, where it seemed to be principally concentrated, and in preventing that disorganization, to which, as appeared from dissection, the fatality of the disease was chiefly to be attributed. Scarcely a case occurred in which more or less benefit was not derived from the irritation of a blister during the period of re-action; for, to whatever extent depletion may have been carried, and whatever effect it may have had in subduing excitement, the cardialgia and vomiting still continued troublesome, and could only be further mitigated by the means now under consideration. When the excitement ran high, the application of a blister was deferred till the lancet had been once freely used; or if it had been applied during the first stage of the disease, for the purpose of exciting re-action, it was removed as soon as that effect was produced, and not re-applied till the more efficient means had been duly employed. But where the efforts of re-action did not soon become so violent as to require bleeding, a large vesicatory was applied without delay over the epigastrium; and its effects here were equally salutary as in those cases where it had been preceded by venesection.

By the several means which have been enumerated, the second indication was generally fulfilled; that is, re-action was reduced within its proper limits, and a remission produced, to prolong which was the object of the third indication. Of the means that were employed with this view, I come now to speak.

Third. The remedy on which I chiefly relied for prolonging the period of remission, and preventing a return of re-action, was one which was also employed with great benefit in answering the second indication, namely, calomel. But here its efficacy consisted principally in its alterative effects, while its utility in reducing excessive excitement, resulted in a great measure from its purgative operation; and however beneficial it may have been as an evacuant, at an early stage of the disease, it was still more so at the period of which I am speaking, as an alterant. Whatever relief it might afford, in conjunction with other means, by evacuating the bowels, so long as the discharges retained their morbid appearance, I could not be certain of having gained any permanent advantage over the disease: indeed this was an evidence that the disease still maintained its seat in the internal organs, and that, although it might seem for a time to be subdued, yet there was danger of its soon reviving and raging with increased violence. But no sooner did the alvine discharges assume a more healthy colour in consequence of a due exhibition of mercury, than the force of the disease appeared to be completely broken; and though there might be a renewal of the febrile conflict, this was generally slight, and of short duration.

To subject the system to the mercurial influence, and produce this important change in the hepatic and intestinal secretions, calomel was given in doses of from three to ten grains, and repeated every two, three, or four hours, until its effects on the mouth became manifest. When there was considerable gastric irritation, the calomel was administered alone in the form of pill; but when the state of the stomach would admit, it was combined with opium and antimonial powder, in the proportion of five grains of calomel, half a grain of opium, and two or three grains of the pulvis antimonialis At the same time from a drachm to half an ounce of the strong mercurial ointment, was daily used by frictions, and in dressings to blistered surfaces. Before commencing this course, the bowels were thoroughly evacuated by one or more scruple doses of calomel, and by injections, if necessary; and then by pursuing it as strictly as circumstances would permit, the mercurial action became manifest on the mouth in two or three days; and at the same time a favourable change took place in most of the disordered functions. The affection of the stomach subsided by degrees; the tongue parted with its yellowish or brown coat, and became moist; cutaneous secretion was restored; the excretions resumed their natural colour; and the patient felt himself gradually released from the influence which the disease had hitherto exerted, in a greater or less degree, over all his senses. These salutary effects being once produced, the danger was generally past; for there was scarcely an instance of a fatal termination, except in consequence of relapse from imprudent exposure, after it became evident that mercury had brought the system under its influence; and on the contrary, few cases terminated favourably, where the system remained insensible to the action of mercury. At the same time that this course was pursuing, it was necessary to keep up free evacuations from the bowels, for which the calomel, administered in the manner above stated, was generally sufficient; but if not, the dose was occasionally augmented to answer this purpose, or, when circumstances would admit of it, injections of sea-water, solutions of sulph. mag. &c. or any mild laxative, as ol. ricini, infus. sennæ, sulph. mag. &c. were employed with equal benefit.

External stimulation was also a useful auxiliary in fulfilling the present indication; and accordingly, blisters and sinapisms were occasionally renewed, and stimulating dressings applied to the excoriated surfaces. The dressing which I generally employed, was a mixture of the ung. canth. and ung. hyd. fort. As soon as the mercurial action became apparent in the mouth, the dose of calomel was diminished, and the interval between the doses increased; but, at the same time, it was given in sufficient quantity to keep the system under its influence, and continued till convalescence had made considerable progress. After ptyalism appeared, from ten to thirty grains of calomel, combined with opium and antimonial powder in the manner already mentioned, administered daily, were generally sufficient to answer the desired purpose. The earlier ptyalism took place, the more complete was the victory obtained over the disease; and as it was more free the sooner it was produced, a copious flow of saliva was always a favourable indication. The salutary effects of mercury as an alterative were commonly manifested within three days from the commencement of its exhibition: if a longer period elapsed, they seldom took place at all, and the disease terminated fatally.

Thus, by subjecting the system as soon as possible to the mercurial influence, and at the same time keeping up free evacuations from the bowels, and maintaining a considerable degree of external irritation, the remission was prolonged, and a repetition of the febrile orgasm sometimes, though not often, wholly prevented; and when it did recur, it was almost always so far mitigated as to be devoid of danger. We come now to consider the means for answering the remaining indication.

Fourth. It has been observed that the tendency of the disease to death or recovery became manifest from the commencement of the fourth period or stage of its progress, if not before. Hence the remedies adapted to this period, and for answering the present indication, were designed to obviate the particular symptoms which were the usual precursors of death, or to assist in completing the victory which nature seemed to be now gaining over her destructive enemy. The symptoms just alluded to, as denoting a. fatal termination, have been already described. It is therefore unnecessary to enumerate them here, or the means that were unsuccessfully employed to counteract them.

For the *kickup*, the only treatment, from which I derived any evident benefit, consisted in administering ten grains of bicarbonate of soda, combined with about a grain of opium, every four or five hours, and in applying between the shoulders a large plaster, composed of pitch, opium, and camphor. In two or three instances, I had reason to believe that this troublesome symptom yielded to these means. The *black vomiting* was arrested in two instances, and the patients recovered. In one it was quickly stopped by charcoal alone; in the other, it was first checked by a dose of calomel, consisting of eighty grains, and afterwards permanently restrained by charcoal, combined with oil of turpentine. The symptoms attending the latter case were extremely severe, and required the employment of vigorous measures. The matter thrown up had the black flaky appearance, and its ejection was accompanied with the most distressing efforts, and an insupportable sense of heat, extending through the whole alimentary tube from the stomach to the anus. After continuing several hours, it was checked in the manner I have mentioned, and the other distressing symptoms were considerably alleviated; but in a few hours they all returned, and with as great violence as before. Recourse was now had to the charcoal and oil of turpentine, equal parts of which were mixed together, and two drachms of the mixture given every four or five hours. After a few doses had been taken, the vomiting ceased, and the burning in the stomach was a good deal abated, but it still continued severe in the intestines. It was finally relieved by injections of lime-water, balsam of copaiba, and mucilage. . This remedy was found useful in other cases, where the mucous tissue of the intestines was in an irritable or inflamed state. For the *hemorrhage*, which I have ranked among the most fatal symptoms of the disease, nothing was, and I believe nothing could be, employed with any effect; though every thing was tried which promised any success. At the same time that the remedies which have just been enumerated were employed, it was necessary to keep the bowels open; and for this purpose cathartics were frequently required. Costiveness never failed to aggravate the disease; and however depressed and apparently debilitated the system might be, if milder means were ineffectual, strong cathartics were given with advantage. When the near approach of dissolution has been threatened, not indeed by black vomit, hickup, or hemorrhage, but by the livid hue of the skin, coldness of the extremities, absence of pulse, short and laborious respiration, &c., I have known a cathartic consisting of a scruple of calomel and half a drachm of jalap, to remove all these alarming symptoms in the course of a few hours, and the patient to recover.

In fulfilling the remaining part of this indication, namely, to promote convalescence, when symptoms appeared which denoted a favourable termination, it was always necessary to continue the use, to a greater or less extent, of the means which had been employed for answering the three former indications. Notwithstanding the force of the disease might be broken, and there might be reason to anticipate a fortunate issue; yet it was generally necessary, at the commencement of the period which I have now in view, to resume the means for moderating re-action. Venesection, however, was very rarely admissible at this late stage of the disease; but cold aspersion, cathartics, blisters, &c., were employed with greater or less diligence according to the urgency of the symptoms. The alterative use of mercury was continued as long as a single vestige of the disease remained. By persevering in the use of these means, the disease was at length subdued, and convalescence became fairly established. Recovery here was a slow and tedious process, and owing to the delicate state of the stomach, I was greatly restricted in the use of means for accelerating it. Porter was the tonic which agreed best with the stomach, and indeed the only article of this class of remedies that could be used at all, till convalescence was pretty far advanced; when some of the light bitter infusions answered very well instead of porter. All the vinous and spirituous preparations were inadmissible at every period of recovery. Whatever tonic was given, it was administered in very small doses, and at intervals of five or six hours.

It may be proper to say a few words here respecting regimen. In the severe forms of the disease, and in all cases where there was considerable gastric derangement, food was wholly prohibited till convalescence was established, and then only a very minute quantity of the mildest farinaceous articles was allowed to be taken at once. Great caution was necessary in meting out the patient's diet; for, as the appetite was often too great for the digestive powers, there was always great danger of this over-eating, which never failed to bring on a relapse and disappoint the most flattering hopes of recovery. Tapioca and arrow-root were the best articles of diet during the early part of convalescence; and these were allowed only at intervals of three or four hours. As the stomach regained its tone and energy, these articles were exchanged for chicken-broth; this was succeeded by the lightest kind of solid food, and thus by degrees the patient returned to his former coarse and substantial fare.

Respecting drinks, it is only necessary to observe, that during the whole progress of the disease, none were taken but such as were mild and unirritating. The principal drinks were toastwater, barley or rice-water, solutions of gum arabic, and a weak infusion of balm. Lemonade was grateful to the palate, but disagreed, as well as every other acidulated drink, with the stomach. Under this head may be mentioned effervescing draughts, or soda-water, which, though very agreeable to the taste, generally proved offensive to the stomach.

Having now concluded my account of the yellow fever, perhaps it may not be improper to say a few words respecting its sequelæ, or those diseases which became most prevalent when it ceased to rage. These were

Intermittent Fever and Jaundice.—As the season advanced and the weather became cooler, the yellow fever gradually lost its malignity, and assumed a milder and more manageable character. At the same time, the type of the fever underwent a corresponding change, by the remissions becoming gradually more perfect, until at length they amounted to a complete apyrexia or intermission. But though the disease had changed its character, it still manifested a great degree of obstinacy, owing to the irritable state of the gastric organs, and to hepatic derangements. Not only those who had suffered an attack of the yellow fever, but others, who, by their late arrival on the island, had escaped that direful malady, were subject to the intermittent. Its attacks were most frequent immediately subsequent to a change of the wind from a southerly to a northerly direction; which, as has been before mentioned, was always attended with a considerable reduction of temperature. Respecting the symptoms of the disease, I shall only remark, that those depending on the irritable state of the stomach and liver, were particularly conspicuous, and required a mode of treatment which is not common in intermittent fever. The type of the disease was generally that of the single or double tertian.

The plan of treatment which I found to be most effectual, consisted in the administration of mercury as an alterative, in combination with opium and antimonial powder, in the manner which has been already mentioned, till a slight ptyalism was induced; when the paroxysms often ceased, and the patient recovered without further treatment. But if the disease still continued, I gave the sulphate of quinia in the form of pill, a grain every hour or two during the apyrexia, by which means a stop was put to the paroxysms, at least for a time. This medicine seemed better adapted to the irritable state of the stomach, and to be more effectual, than any of the other remedies which have been extolled for curing intermittents; though in some cases, where the stomach was free from uneasiness, the bark in substance was given with success. It was administered in combination with carbonate of potassa and powdered columba-root, as follows: .R. pulv. cinchon. ℥i. carb. potass. ʒi. pulv. rad. colomb. ʒiss. cujus sumetur drachma una quaq. hora 2da, quamdiu continuetur intermissio. Blisters and sinapisms were frequently employed as auxiliaries to the means which have been mentioned.

By pursuing this course of treatment, with such variations as circumstances required, the disease was generally subdued for a time; but it was liable to return from the slightest causes, and it was only by a change of climate that a radical cure could be effected.

The *jaundice* occurred much less frequently as a sequel of the yellow fever, than the disease of which I have been speaking. It was often accompanied with an evident enlargement of the liver, and perhaps may, therefore, be considered as a symptom of structural derangement of that organ, rather than as an original disease.

The mode of treatment which proved most effectual, consisted in the alterative use of mercury, in the manner that has been mentioned, and the repeated application of blisters over the right hypochondrium; and in the use of porter and the light bitter infusions, after the mercurial treatment had effected a change in the secretions.

But this disease, like the intermittent, though it generally yielded for a time to the remedies that were employed, always manifested a strong disposition to return, as the patient was continually exposed to the causes which produced it; and a permanent cure was only to be obtained by a long residence in a healthy climate.

ARTICLE II.—*Hints on Vaccination.* By D. FRANCIS CONDIE, M.D.

DAILY complaints are made by physicians, in different parts of our country, of the difficulties they experience in preserving, throughout the year, a supply of genuine vaccine matter, and also of their frequent failures, in attempts to communicate the infection, in a satisfactory manner, to their patients. Being fully persuaded, that both these circumstances may be avoided, by the observation of a few simple rules, I have taken the liberty of offering to the profession, for the use, more particularly, of its younger members, some hints in relation to the points referred to—the result of considerable experience and many comparative experiments. Even should the directions I propose laying down, be found inconsistent with the experience of some, it is trusted, that this little essay may do some good, by calling forth the remarks of others, on questions of importance, as well to the medical profession, as to the community at large:—For upon the purity of the vaccine matter we employ, and our facility in placing under its influence the system, will very much depend the certainty of our patients' security, against the effects of the most loathsome and destructive of maladies, "the scourge of infancy and terror of beauty."

I. *Of the Scab.* The experience of the great body of American practitioners has confirmed them, in giving to the dry crust, or scab, which forms upon the arm after vaccination, a preference over the recent lymph, as a means of propagating the disease. This scab, while equally efficacious with the latter, is much more manageable, and more readily preserved; while, at the same time, its use obviates the necessity of interfering with the regular progress of the vaccine vesicle,—a circumstance of very considerable importance in reference to the certainty of the child's infection.

In regard to the appearances of the scab, when we are certain that it is the product of the genuine disease, nothing of course need be said; but as this cannot always be the case, and as I have observed, that crusts furnished, even by children who had the disease most effectually, have, in consequence of some change which they have undergone whilst upon the arm, failed in producing genuine vaccination, some remarks in relation to the general characters presented by those scabs most to be depended on, though of themselves far from being absolutely conclusive, will nevertheless aid very considerably the physician in his selection.

The scab I have found the most seldom to fail, and which has also appeared the longest to resist any change in its properties, is of a very dark mahogany or walnut colour,—hard and perfectly opaque;—it is somewhat thick at its centre, or approaches to a conic form, and is nearly level on its under side or base;—when cut into thin slices it presents a dirty white, or somewhat brownish, appearance;—it is rather tough, or, in other words, is more readily dissolved in water than reduced to a powder. I have frequently had presented to me, as genuine vaccine scabs, those of a light brown, or an amber colour, thin, semi-transparent, easily fractured, and as it were, concave, or excavated, at their lower surface. Now, although I am not prepared to say, that a crust, presenting the last mentioned characters, is never genuine, yet so frequently will such a one be found to fail in communicating the disease, that I would advise it invariably to be rejected.

A scab also, formed from a vesicle, the regular progress of which has been interfered with, by the irritation of the clothing, accidental violence, or other cause, should never be made use of for vaccinating, as the disease communicated by it will seldom be found genuine. Neither should any scab be preserved for use, that has been taken from a child affected at the time with any disease of the skin. Some, as WILLAN, believe the virus furnished by children under such circumstances will communicate a spurious disease, not preservative from the small pox; whilst others conceive, that the cutaneous affection may be propagated with the vaccination. The truth of either of these opinions I can neither affirm nor deny, but certainly, until points of so much importance are fully determined, the caution referred to should on no account be lost sight of.

II. *Preservation of the Scab.* This is with many a subject of great, and, in some degree, unnecessary anxiety,—the virus in this form being much more easily, and for a longer period of time, preserved pure than is generally imagined. The great object in the preservation of the scab should be, to keep it perfectly dry, particularly to secure it from the influence of any undue degree of moisture in the atmosphere. This I conceive to be of greater importance than the mere exclusion of the atmospheric air,—though, at the same time, the latter should not be neglected.

The best means, probably, for securing the scab from undergoing any change, is to have a circular piece of ivory, on the upper surface of which, a number of small excavations have been formed, each accurately adapted for containing a single scab,—the whole to be covered with a common lid, which fits on in the manner of a screw. But even this precaution is not absolutely necessary. I have been in the habit, for many years, of simply wrapping each crust, carefully, in a portion of clean writing paper; and in this manner, deposited in a close box turned out of solid wood, or in my pocket book or lancet case, I have kept vaccine matter, without experiencing in it the least deterioration, for upwards of a twelvemonth. The fact is, I have never known myself to be without genuine matter,—on the contrary, besides what was necessary for my own use, in the above simple manner, I have been enabled to keep a sufficiency for the supply of my friends, at all seasons of the year.

When the scab is carried about the physician's person, great care should be observed to guard it from the influence of the heat and perspiration of the body.

It has been lately proposed by some, to reduce the vaccine scab to a fine powder, and in this state to preserve it in a small ivory tube; but matter kept in this manner will, I am convinced, much more frequently fail in communicating the disease, than when the scab is retained entire. Whether the process of powdering it have any effect upon its composition, or whether, simply, in a state of minute division it is more liable to a spontaneous decomposition, I pretend not to determine;—the fact, however, of its diminished efficiency I have tested by experiment.

III. *Of the insertion of the Virus into the System.* Previous to its insertion, it is necessary that a small portion of the dry scab be reduced, by means of pure *cool* water, into a paste, of about the consistency of cream;—for this purpose, the bottom of a china plate or saucer, and a penknife or lancet, constitute every thing that is necessary. It is, however, very customary, and perhaps convenient, for the physician to carry with him a small square of common window glass, upon which to form the paste,—but when this is done, two cautions are absolutely necessary, viz. that after each time the glass is used, it be made perfectly clean and dry, before it is put by; and secondly, that on no account whatever, the dissolved matter remaining from one vaccination be preserved for another. Virus thus kept, will be a constant source of disappointment to the physician, and of danger to the patient.

After the matter has been dissolved, the common practice is, to dip into it the point of a lancet, which latter is then introduced obliquely, for a short distance, beneath the skin. From my experience with this method of vaccinating, I have found, that, however pure and fresh the matter employed, the disease, in a majority of instances, was not communicated by it on the first attempt, and frequently not until after several trials. The failures have appeared to me to arise from one of two causes; either, that, in passing the lancet under the skin, the matter is entirely wiped off from its point, and not a particle is introduced, or that, by the puncture, so much blood is caused to flow, that the matter is washed out, even after it has been deposited beneath the cuticle. No one of the methods proposed to obviate these causes of failure have been found very generally successful. I believe that every candid physician, who has followed the above plan of vaccinating, will acknowledge his very frequent want of success; and it is this circumstance, no doubt, that has given rise to the invention of numerous instruments, for inserting the matter into the system, by the aid of which, it is proposed to render the communication of the vaccine disease, at once, more easy and certain. Such of these instruments, however, as have come under my inspection, I should consider to be mere encumbrances to the physician's pocket case.

It would be useless to enter into an examination of all the plans which have been proposed for vaccinating,—many of them being unnecessarily tedious, and others productive of no inconsiderable pain, while all of them are, in every point of view, inferior to the method now to be described. This method consists in making, on the part at which the matter is to be inserted, several straight incisions, with the blade of a common spring lancet, taking care, however, that each incision shall penetrate no deeper than is necessary merely to divide the cuticle; and then crossing these, at right angles, by others of a similar depth. This operation, when properly performed, will be found to have occasioned a slight blush of red upon the part, and most commonly, a number of extremely minute specks of blood; the less blood, however, that is thus occasioned to flow the better. A portion of the dissolved crust, being now taken upon the point of the forefinger, is to be rubbed gently over the incisions, and the remainder may be then spread upon the part and allowed to dry. This mode of vaccinating I have been in the habit of following for several years, and am convinced, that, when it is performed with the least degree of care, it will seldom, if ever, fail of at once communicating the disease. To render it still more effectual, it has been proposed to smear the arm with the matter previously to dividing the cuticle: either method may be pursued. One recommendation in favour of the foregoing plan, independent of its certainty, is its being productive of so little pain, that it may be performed while the infant is asleep without awaking it, or even when it is awake, almost without its knowledge,—a circumstance, however trivial it may appear, by no means beneath the notice of the practitioner.

Subsequent to vaccination, the arm should be guarded from irritation by the fingers of the patient, its clothing, or accidental violence. To effect this, the best means is to enclose the whole arm in a wide sleeve of linen or fine muslin, drawn at the shoulder and wrist. This is a caution of some importance, as well to obtain a genuine scab, as from the fact that the very security of the child against the small pox may be jeoparded by its neglect.

IV. *Subsequent Attendance.*—To decide upon the certainty of the child's infection, after whatever manner it may have been vaccinated, it is absolutely necessary that the physician should watch attentively the progress of the arm, from the insertion of the virus until the formation of the scab; the appearances presented on the third, sixth, ninth, and twelfth, or the fourth, eighth, and twelfth days, being particularly noted. No one, indeed, should be pronounced vaccinated, and secure, in consequence, from the effects of small-pox, unless the physician is absolutely certain, from his own observation, that the progress of the arm, the form and appearance of the vesicle produced, and its regular and successive gradations, correspond with those which mark the genuine vaccine disease,—a correct description of which being contained in every systematic work, need not be repeated here.

V. *General Remarks.*—With respect to the age and other circumstances proper for the performance of vaccination, the remarks of **Capuron** appear to be so extremely judicious, that I shall take the liberty of quoting them here, with but little or no alteration.

The vaccine disease is of so mild a nature, that we may dispense with every preparation of the system previously to its communication, and with every species of medical treatment during its course or subsequently. Neither the season of the year, the age, temperament, or sex of the little patient, not even the diseases with which it may accidently be affected, have been found to produce any change in the character of the vaccine infection. In general, however, vaccination is postponed until the patient is from six weeks to two months old. Some, however, have imagined that the disease is more regular, and accompanied with less febrile irritation, in children from two to six months old, and hence they recommend this period as better adapted for vaccination than any other; but experience has fully proved, that the operation is as successful, and the disease produced equally mild, in the new born infant or in those but a few days old. In all cases, where it can be done conveniently, it is proper to wait until the rigours of winter have been moderated by the influence of spring, or until the heats of summer have given way to the coolness of autumn: in a word, whenever there is no urgent necessity for the immediate performance of vaccination, we endeavour, previously, to remove from the child every circumstance capable of influencing its health. But, should the prevalence of epidemic small-pox endanger the life of the infant, or a necessity present itself for its immediate removal, to a situation where pure vaccine matter can with difficulty be procured; in such cases, it would be the height of imprudence to delay, for a moment, on any slight pretext, the employment of a preservative, the certainty and innocent nature of which are now placed beyond the possibility of doubt.

It has been remarked that vaccination adds nothing to the danger, nor in any degree interferes with the process of dentition; and practitioners of eminence, of whom we may cite **Valentin** and **Husson**, assure us, that the communication of the vaccine disease has had the effect of completely removing crusta lactea, herpes, tenia capitis, convulsions, ophthalmia, and even scrofula.

Hence, we find, there are few circumstances which will warrant us in hesitating, for a moment, to place in security, by vaccination, every infant in the least danger of being exposed to the influence of the small-pox contagion.

ARTICLE III.—*On the Effects of the Vapour Bath.* By D. THEODORE COXE, M. D.

VAPOUR bathing, it is well known, has been employed, in some shape or other, almost from time immemorial. We have good reason to believe, that HIPPOCRATES, GALEN, and others of the olden time, were not unacquainted with its effects; and we find it used, either as a luxury, or remedy, in civilized and in savage life, in polar regions and beneath a tropical sun. In Russia and the adjacent countries, it is so commonly employed, that to be excluded from its use, is regarded as a punishment of some severity. The aborigines of our country place great reliance on its powers in fevers, &c.; and for evidence of its being a luxury, if personal experience be wanting, we need only appeal to the turbaned followers of Mahomet. It is not my object, however, in the present paper, to enter into its history, or even detail the improvements made in its mode of administration. For these and other points, we must refer to the various works upon vapour bathing, and particularly to those of RAPOU and GIBNEY, and to a review of the latter, in the April number of the Medical Recorder for 1826. The principal object of this paper being to give an account of some cases which were treated by the vapour bath in this city, and which fell under my immediate observation, I enter at once upon the task, intending to offer, as I proceed, such remarks and reflections as may seem to arise out of the nature of the subject.

Upon the establishment of the vapour bath in this city some time since, a brief record of most of the principal cases was kept by the physicians connected with the institution, with a view to a subsequent report; but this having been mislaid, nothing but a very general statement has as yet been made public. Having been so fortunate lately as to recover a small portion of these cases, and thinking, imperfect as they are, they might not be wholly destitute of interest to some of the readers of this journal, I have concluded to present them at this time to their notice.

I would merely premise for the information of those who may not have seen the apparatus employed, that the vapour, generated in a boiler, escaped through a bent tube, furnished with a stop cock, into a small basin or receiver in the lower part of a box. The top of this receiver, into which herbs, or other articles were placed, as well as the upper covering of the box, was perforated, and allowed the free ascent of the medicated vapour into the upper or curtained portion of the contrivance, where the bather sat, and either inhaled the vapour, or had it merely applied to the surface of the skin, according to the situation of his head, whether within or exterior to the enclosure.

Among the first cases that presented for trial, was that of a Mr. S——, from Kentucky, who had been under the care of several physicians for many years, had travelled much in search of health, and undergone a variety of treatment. His complaint was a chronic hepatic derangement, with great torpor of the bowels. The skin was constantly dry and harsh, as well as very sallow, and digestion was much impaired. He had been thus affected for six years, occasionally relieved by the prescriptions of some of his physicians, but never permanently better. He began the use of the bath on the twenty-first of October, and took it sometimes daily, sometimes every second day, until the beginning of December, when he left the city to all appearance perfectly well. He took the bath at a pretty high temperature, inhaling the vapour, and sweating very profusely. He also used frictions with a flesh brush over the region of the liver. In consequence of these measures, his skin became soft, his complexion clear, and his digestion good; the torpor of the bowels was removed, and notwithstanding the depletory operation of the bath, he had actually gained flesh. Perhaps in no case were the benefits from the bath so signal and striking as in the present one, though in most of the cases where the skin was much affected, it showed decided powers.

About the same time, a Mr. H—— of this city, resolved to try the efficacy of the bath. He had been long subject to rheumatism, and was in the frequent habit of taking the Lisbon diet drink. For three weeks he had suffered severely from an attack, having been obliged to take laudanum every night to procure sleep. From the pain and stiffness in his shoulders, he was unable to shave, or put on his coat or cravat, without assistance. His muscles generally, but particularly those of his arm and back, were contracted, the former being bent at the elbow. The first bath he took, inhaling the vapour and sweating freely for upwards of half an hour, afforded such relief, that he tied on his cravat himself, and slept that night without laudanum. A second bath was followed by similar results, and the disease seemed to be so nearly removed, that he omitted coming again for some time. A slight return of his complaint, however, brought him again to the bath, after which he declared himself free from pain, and with but a slight stiffness of the shoulder and elbow remaining. Not very long after, we were surprised to hear that this gentleman was confined to his bed, much emaciated, suffering under an increase of pain and stiffness, and that all this was attributed to the bath. How this supposition could be well founded, after at first deriving so much benefit from it, and without some particular and imprudent exposure, we were at a loss to conceive; and the more especially as some of us were in the habit of frequently taking the bath at different temperatures, and sallying immediately forth upon our usual business, sometimes indeed before we were completely dry, in all weathers, cold, warm, wet and dry, without subsequently experiencing any ill effects. It is possible, however, that the altered condition of a rheumatic system, where more or less fever attends, may induce a liability to take cold after bathing, which we did not experience.

With regard to exposure, and liability to take cold after using the bath, a few words in this place may not be improper; and we here wish to be considered as speaking of persons in health, for disease may, and doubtless does, greatly modify the human constitution and its susceptibilities. The Russian, who delights in a vapour bath of high temperature, goes reeking from it to roll in the snow, or plunge into cold water. This he does not only with impunity but advantage; and though this may be owing *now* to habit, that "second nature," there must have been a beginning, when this could not be brought into the account. Strangers too, unaccustomed to the manners and customs of the country, have borne it well. BEAUPRE, in his treatise on cold, says, he frequently had buckets of cold water thrown upon him while in, or immediately upon issuing from, the bath; that the first time it created but a lively coolness; but that the second time, after a bath of higher temperature, his feelings were decidedly agreeable. The stronger the heat, the less sensible is the cold impression. When the skin is highly excited and reddened by a bath of from 120° to 160°, cold has scarcely any effect; but in the ordinary state of the cutaneous function, a sudden change of 20° or 30° in the temperature is sensibly felt. BLAGDEN, who entered ovens heated to 250°, says, "we passed out after every experiment, immediately into the cold air, without any precaution; after exposing our naked bodies to the heat, and sweating most violently, we instantly went into a cold room, and staid there even some minutes before we began to dress, yet no one received the least injury." The experience of Dr. DOBSON at Liverpool, is to the same effect, as also that of Dr. CLENDINNING and many others. Captain PARRY, in his account of some of his polar expeditions, mentions that his crew suffered comparatively little from the cold, after the adoption of the plan of thoroughly heating all parts of the vessel, and that they were in the constant habit of passing from a temperature of 50° or 60° F. to one of 15° or 20° below zero. They also could work better and longer in the cold, in proportion to the accumulation of caloric which they acquired on board the vessel.

But to return from this digression—other cases of rheumatism were treated by the bath with complete and permanent success. These differed essentially from each other in the degree of violence, length of duration, and the system and habits of the individual, and yet the favourable effect on all was the same. A valet of a foreign minister, who had been afflicted with rheumatism of the upper extremities for a long time, had undergone a variety of treatment, and who at this time found great difficulty in moving his left arm, applied to us on the first of November. The first bath afforded him great relief, and the second cured him completely.

A gentleman from Woodbury, New Jersey, of a robust constitution, was attacked, in July 1825, during the very hot weather, with a violent pain in his heel, which subsequently extended up the leg to the hip, causing eventually great stiffness and difficulty in walking. He had used various remedial measures with but little benefit, and resolved to take advantage of his visit to the city, to make trial of the vapour bath. He took five baths in as many days, and was then obliged to leave town; and though not quite cured, his improvement was manifest. He could walk without difficulty, and very little stiffness or pain remained.

In a severe case of lumbago, the patient being unable to dress himself, one bath, at a high temperature, aided by the flesh brush over the loins, effected a complete cure.

A few cases of a different character will now be related. Mr. H. aged 22, had an ulcerated tonsil on the right side, another ulcer on the back of the fauces, and a third on the *velum pendulum palati.* There was also considerable tumefaction, so as to render deglutition very difficult, and the glands on the exterior were tumefied and painful. On the 25th of October, leeches were applied, and the use of the bath was commenced the next day. By evening the swelling was diminished, and deglutition easier. The bath was repeated on the 27th, with continued amendment. On the 29th, the ulcer on the velum pendulum palati, and that on the posterior fauces, were well; the tonsil nearly healed; the external tumours removed; and an eruption of pimples on the face, which had existed for some time, fast disappearing. In a few days, probably from some imprudence, the external swelling again increased, but another bath, followed by a blister, soon removed it. The effects of the bath in removing pimples, and otherwise improving the complexion, in many who were taking it with other views, were so striking, that several females were induced to use it solely for that purpose, and were generally benefited.

About the same time, Mr. C., student of medicine, aged 22, was induced to make trial of the bath. He had an enlarged spleen, with a tumid, soft abdomen, denoting the commencement of effusion. His complexion was sallow and leucophlegmatic, his tongue furred, his bowels irregular, and skin dry. The first bath caused him to sweat freely, and he slept better than usual the succeeding night. The next morning his urine was thick, and he was free from an unpleasant taste in the mouth, which had been a constant attendant on his complaint. He repeated the bath from time to time, with such advantage, that his skin became gradually clear and moist, his bowels regular, his abdomen reduced, and his general feelings much improved.* In short, the bath, aided by the flesh brush, and attention to his bowels, entirely cured him in the course of a few weeks.

A Mr. V. had for a considerable time suffered from a cutaneous eruption, accompanied with a torpid condition of the liver, attended with white and hard fœcal evacuations, for which he had been under treatment for several months. The remedies which he had employed, consisted principally of mercurial preparations, with dietetic regimen. He commenced the bath at about 104°, and sweated profusely, each time augmenting the temperature, until it reached to between 115° and 120°. His liver was much benefited; his stools became more natural; the, eruption much faded, and his general health decidedly improved. He was in the habit of taking several tumblers of cold water while in the bath; and neither in his case, nor in any other in which this usage was followed, did any bad consequences result. The whole system was highly excited, more heated perhaps than in the height of summer; and yet no prostration, no pain, no inconvenience of any kind, was the result. Whether the perfect safety of drinking cold water under these circumstances can be attributed to its being unconnected with fatigue and intemperance, which are generally associated with those terrible cases of cold drinking in the summer season, we will not undertake to decide. It may be proper also to mention, that this gentleman's hair, which of late had fallen out considerably, became under the use of the bath strengthened and thickened. The same effect was observed in other cases.

In a case of scrofula, where we at first had hopes of effecting a cure, the result was eventually unfavourable.

We had several opportunities also of testing the efficacy of the bath in dyspepsia. The patients generally perspired with difficulty; but under the use of the bath freely, it removed the costiveness of the bowels, and considerably improved their complexion; but here the benefit terminated. Indeed, in one case, the inhalation of so much warm vapour seemed to excite too much phlogosis in the stomach, as the patient was worse after taking several baths, and attributed to them this effect. It is probable, that benefit might be derived from a partial bath. For instance, in consequence of these views, he was led to conclusions, which it will be the object of the following essay to develop.

One peculiarity in the succeeding sheets requires explanation. They claim to be founded primarily upon the observation of a large number of cases; and yet they present notices of but few. This mainly arises from the circumstance, that by far the greatest number of them were observed, while the author was subjected to the pressure of various and hurried avocations, pertaining to the station of house physician to the Pennsylvania hospital; and at a time when he did not contemplate writing on the subject. He has, however, he believes, preserved sufficient records to ascertain what is most necessary in describing the disease; and the omission is of the less consequence, both from the general tediousness of a long continued series of cases, and from the circumstance that a considerable number have been well described and preserved by the different writers who have published on this subject, so that reference can easily be had to them. He is obliged to several friends for valuable assistance; but this is, perhaps, the proper place to mention the particular kindness of Dr. NEILL; who, with the greatest liberality, placed in his hands the records of eleven cases, which were selected by that much respected physician, for the purpose of making a fair comparative trial of the relative utility of the emetic and stimulo-narcotic modes of treatment. They will be found appended to this memoir.

Name.—In giving the preference to the term *delirium tremens*, over that, more commonly used among us, of *mania a potu*, the writer may seem to many to be influenced by a desire of singularity. He believes, however, that it is easy to show decided grounds for this choice. In the first place, authority and priority are clearly in its favour. This name, first given by Dr. SUTTON, in his little essay on the disease, has continued, ever since, to be exclusively employed by the European writers, both British and continental; with the only exceptions of Drs. PEARSON, ALDERSON, and ARMSTRONG, who have employed the denomination, commonly used near Newcastle-upon-Tyne, of *brain-fever*. When we consider the extreme laxity and vagueness of this term, as well as the circumstance, in particular, that the same appellation is frequently given to phrenitis, a totally different disease, from which it is of the first importance to distinguish the affection under consideration, but little probability appears that any one will decide in favour of its adoption. The priority then remains, according to the custom of men of science, to the next describer; and confers on him the right of naming the disease he has recorded. The name of delirium tremens, thus given by him, has grown into almost universal employment in the British islands, and, from them, has been adopted by the writers of both France and Germany. It has also been employed in our own country, by several individuals, among whom we may name Dr. STEPHEN BROWN, of New York. To this, the usage of a part of the physicians of the Philadelphia school forms so small an exception, that the title we have assumed may fairly be considered as that generally in use; and it is prevalent custom and concurrence that fix the meaning of language.

On the other hand, it will be found, that the term we have adopted, is, strictly speaking, more correct than that with which we are comparing it. The disease in question, like delirium generally, is of short duration—from two or three to fifteen days: mania is essentially chronic, lasting for months or years; and this is all that forms the distinction between the latter and the delirium of the nosologists. Why then apply language so incorrectly, and call that a *mania a potu*, which is no mania at all? Nor is this, as may be supposed by some, a mere nicety of verbal distinction, devoid of real, practical importance. It was a remark of no slight profundity, or limited application, which dropped from the celebrated MIRABEAU, that "*words are things.*" Whoever consults the papers on this disease published by Dr. KLAPP, which have exercised a very powerful influence upon the Philadelphia practice, will readily find, that that author has described, in the same paper, and with a reference to the same treatment, cases both of proper delirium and of long continued madness. Again, it is not uncommon for persons in the delirium produced by strong drink, to be kept in confinement, under a certificate from a physician, that they are affected with *mania a potu;* the confinement continuing for a length of time, while the treatment and cure of the case scarcely ever occupy more than one or two weeks. That means of security and protection should be provided for those unhappy beings who are addicted to perpetual intoxication, is a matter in which humane men cannot possibly disagree; but it, at least, admits of a question, whether this can with propriety be done under a certificate founded in an error of language, and which is held to operate long after it has ceased to be correct.

Identification of the disease as described by Authors.—The disease of which we are treating, will be, in the ensuing pages, defined and described; but useful purposes may be answered by a reference to some of those published accounts with which I find it to coincide. We here see in a very strong point of view, the advantages of publishing collections of well-described cases. The writer of the present essay has not undertaken to add largely to their number, for reasons already assigned; but will enumerate several descriptions, to be found in print, as naturalists refer to plates, for the purpose of affording an additional certainty in the identification of the disease, by exemplifying his statements. He also wishes to derive the more confidence for his characters of the malady, from their corroboration by others.

The disease of which he treats, then, is the "delirium tremens," of Dr. Samuel Burton Pearson, well but briefly chalked out in his paper, originally published in a pamphlet form, but reprinted in the Edinburgh Medical and Surgical Journal, vol. 9. p. 326. It is that of Dr. Thomas Sutton, as described in his "Tracts on Delirium Tremens, on Peritonitis, and some other inflammatory affections, and on the Gout," published at London; in which will be found an excellent description of it, and a report of a mode of treatment which he found uncommonly successful, sketched in a manner peculiarly strong, natural, and distinct, and characterized, in a remarkable degree, by sincerity and a conscientious precision.

It is the "brain fever of drunkenness" of Dr. Armstrong.* From a reference contained in Dr. Hibbert's little compilation "On Apparitions," it seems to be the "delirium tremens" of Dr. Begbie, described in his thesis, published at Edinburgh,—a pamphlet of which we have not been able to obtain the inspection. It strongly resembles the curious cases of apparitions, described by Dr. Alderson, of Hull;† although, arising as it does from peculiar causes, and under peculiar circumstances, it cannot, at least in every instance, be considered as of the same nature with them. It is generally known by the name we have employed, among the French and German writers, and Dr. Albers, of Bremen, has written a paper on it, by the same designation. Dr. Guersent, who writes the article on this subject in the Dictionnaire de Médecine, but whose remarks do not themselves possess their usual value, as he had no practical knowledge of the disease, furnishes us with a reference to Fodere, as describing an affection under the name of "*phrenesie essentielle, ou sans matière*," with which Dr. G. considers the disease which is the subject of our essay to be identical. We have perused all that we can find in the "Médecine Legale" of that writer, which appears to us capable of being referred to this disease; and are convinced that his "*frenesie idiopathique*" may perhaps include cases of the same disease, but is too imperfectly described for identification.*

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* Practical Illustrations of Typhus Fever, &c. Potter's ed. p. 361. Also, Ed. Med. and Sur. Jour. vol. 9. p. 58, and p. 146; in 1813.

† Ed. Med. and Sur. Jour. vol. 6. p. 287.

In our own country, the disease has now been described by numerous writers.

The *thesis* of Dr. I. C. Snowden, on this subject, published in the Eclectic Repertory, for 1815, p. 372, and reviewed in the first volume of the Philadelphia Journal of the Medical and Physical Sciences, is a very able paper, and one with which I can agree in principle on more points than with almost any other. Besides an accuracy and maturity of preparation, the more remarkable that it has not been equalled by all of those which have succeeded it, and which ought to have surpassed it, from their authors having been furnished with the lights obtained by Dr. S., this paper possesses the character of entire novelty. It appears to have been, what we have since learned to be the fact, drawn up without the knowledge of any previous essays on the same subject; and was actually the first printed account of the disease published in America, a country which is so much subjected to its ravages. Dr. SNOWDEN's thesis was written in 1814, and published in 1815. The papers by Drs. ARMSTRONG and SUTTON, and the reprint in the Edinburgh Journal of Dr. PEARSON's little production, were made public in 1813. Dr. PEARSON is undoubtedly the earliest describer of this disease in print, known to us; as his account of it was distributed in 1801. It forms but two pages of the Journal; and appears to have been altogether unknown in London, or probably in any other town in England than Newcastle and Sunderland. It seems to have been only circulated in the author's immediate neighbourhood, and among his personal friends.

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* We here append all he says respecting it.—

"La frénésie idiopathique, maladic rare dans les pays froids, que j'ai déjà observée plusieurs fois dans les contrées méridionales, presque toujours mortelle en très-peu de temps, caractérisée par un pouls petit, fréquent et serré, par la carpologie, le tremblement des membres et un délire continuel, furieux dans l'exacerbation, tranquille dans la rémission, ne peut laisser aucun doute; car, quoiqu'il paraisse quelquefois que le malade reconnaît les assistans et qu'il répond à propos à leur questions, un instant après il divogue de nouveau, et l'on voit que, semblable aux aliénés en démence, il n'a eu aucune conscience des discours qu'il a tenus."—Fodere—T. 1—p. 264.

From this it appears evident, that in France, as well as in England, it has been confounded with phrenitis. Vide, note at the end.

"*An attempt to point out a new and successful method of treating mania a temulentia;*"—by JOSEPH KLAPP, M. D.&c.: in the Eclectic Repertory for 1817.—In this, the author principally advocates a gastric pathology, and a treatment consisting chiefly in emetics.

"*Observations on temulent diseases;*" by the same author; in the first volume of the American Medical Recorder, p. 462:—Here Dr. KLAPP further enforces and exemplifies his views, and extends them to many cases of convulsions.

The paper by our celebrated countryman, Dr. DRAKE, of Cincinnati, published in the American Medical Recorder, for 1819, relates mainly to *convulsions* from intemperance; and the "reverie" which he records in one instance, is not described in sufficient detail to enable us to make a close comparison.

A case, entitled "A case of mania a temulentia," was published by the late Dr. GILBERT FLAGLER, of Philadelphia, in the American Medical Recorder for the same year, p. 185. The editor, Dr. EBERLE, adds another case, in his remarks on the paper. In the same volume, at p. 180, Dr. EBERLE contributes a case of mental derangement from intoxication, cured by two emetics; the symptoms are not given: and at p. 478, another case is recorded by Dr. JOSEPH G. NANCREDE. This disease lasted for a period exceeding eighteen days, and did not entirely recover under the use of the emetics which he administered; but success seemed to be rendered complete by the cold shower-bath.

"*Observations on mania a potu;*" by JAMES M. STAUGHTON, M. D. This memoir, which is generally understood to be extracted from the author's thesis, is one which does him great honour; and appears to me to contain the best exposition and defence extant of the emetic treatment. We find it in the third volume of the Philadelphia Journal, for the latter months of 1821.

"*Observations on Delirium Tremens, or the Delirium of Drunkenness;*" by Dr. STEPHEN BROWN, late resident surgeon of the New York almshouse; published in the American Medical Recorder for 1822. This is also an able essay, well furnished with cases, and savouring strongly of nature and of careful observation.

The disease which is our subject, then, is identical with the mania a potu, described by Dr. SNOWDEN, and by the reviewer in the Philadelphia Journal.

The same may be said of that described in Dr. KLAPP's first paper; with the qualification, that the description of his second case is not sufficiently full to furnish, of itself, sufficient means of judgment. Case third is, I should apprehend, a distinct instance of this disease, supervening upon a previously existing affection; and the description of the delirium in case fourth, is peculiarly striking and lively.

In Dr. DRAKE's paper, case third, that of Mr. J. seems, from the description of the delirium, to have been of this species; though a minute detail of the symptoms does not appear to have been the author's object. Of the next case I should have great doubts.

Dr. FLAGLER's case, as recorded, hardly presents a single attribute of the disease under consideration, or, in truth, of mania of any species. The subject of it appears, indeed, to have laboured for three weeks and five days, under very evident symptoms of *gastric* and other derangement, to which I should have been inclined to give the appellation of bilious fever, before any delirium is mentioned to have taken place; and then the characters usually attributed to mania a potu, are by no means described as having occurred.

In Dr. EBERLE's case, no description of symptoms and duration is furnished.

Dr. STAUGHTON's mania a potu is evidently the same disease. It is, however, a subject for future consideration, whether this author has not, like some other practitioners, described as symptoms what have really been complications of the disease.

The description and cases given by Dr. Brown, of New York, are, in our opinion, peculiarly happy; and correspond very exactly with the cases which we would designate as examples of delirium tremens; more so, indeed, than almost any others. With this general praise, I must be permitted to combine the remark, that his last case, that of W. R., at p. 202, appears to me to be capable of misleading. It is the only one which exhibited a group of symptoms characterizing *typhus fever;* a duration of twenty-one days, low, incoherent muttering, without being able to speak "an intelligible word," picking at the bed-clothes, a dry, brown tongue, inability to protrude that organ, a small, rapid, and feeble pulse, and inability to swallow solid substances. To these, I have no doubt, was superadded the affection of the brain which we have above described; as is argued by the very great relief which was derived from the administration of half an ounce of laudanum,—a very unusual practice in common typhus fever; but the circumstances mentioned above, and the benefit apparently derived from a salivation, and some other remedial means, very properly resorted to by Dr. B., forbid the idea that it was an unmixed case of the latter.

Description and Symptoms. Causes.—The remote causes of delirium tremens are capable of being defined with more distinctness than perhaps those of almost any other disease to which humanity is subjected. There is no authority within the writer's reach who refers the production of this delirium to more than a single source. It occurs in every case, so far as known, as a consequence of the sudden suspension of the use, more or less habitual, of a narcotic or narcotico-stimulant substance. In almost every instance, this substance is alcohol, in some shape; although I have seen well characterized cases, in which it was produced by the intermission of the use of opium. Tradition, at the Pennsylvania hospital, also confirms this last observation.

It is important for the reader to bear in mind, as we shall have repeated occasion to remark, that this disease is the result, not of the *application,* but of the *sudden intermission,* of the use of these articles. The writer of this is well convinced, that many of the errors and contradictions into which practitioners have been led, relative to this complaint, have arisen from their confounding the effect of the omission of strong liquors, with that produced, directly, by the liquors themselves—delirium tremens, or mania a potu, with drunkenness.

We have said that the previous use of the narcotic substances must have been *habitual*. I know of no example, where, after a short intoxication for a few days, this disease has been produced by the cessation of drinking. In every instance, it has either occurred from the sudden change of a fixed habit, or at the abrupt termination of a debauch, or, as labouring people here generally denominate it, a *frolic*, of long continuance.

The most frequent *complication* of this disease with which I have met, and one of a peculiarly distressing character, takes place when it occurs in a patient suffering from a fracture. A man breaks his leg, during a long course of intoxication. He is placed in his bed; and from the natural unwillingness felt by himself and his relations, to admit the existence of the degrading habit to which he has addicted himself, the physician is not informed of the real state of the case;—he is subjected to the usual dietetic treatment, splints are applied, and for two or three days all appears to be well. At last the medical attendant is advised that his patient does not sleep at night, and that, at such times, he is "light-headed." Frequently this has been the case for two or three nights, before the physician is made fully aware of it. At last, attention is forcibly arrested by a violent paroxysm of delirium; in which the unfortunate sufferer is affrighted by various phantoms which appear distinctly before his eyes, flings his attendants aside with restless and apparently preternatural strength, and stumbles about the room, with or without the dangling appendages of his deranged splints. This is a state of things peculiarly embarrassing to the practitioner, and of which we shall have occasion again to speak, indicating at the same time an appropriate treatment. Many physicians refer the delirium, in these cases, partly to the irritation produced in the nervous system by the fracture; and partly to the change of habits arising from confinement to bed. We have taken especial pains to investigate this point; and are convinced, from the careful inspection of repeated cases, that the disease occurs with no greater frequency in patients suffering from fractures, than would arise, in all instances, from an equal interruption in the habit of drinking. It should be recollected, that a great proportion of the individuals admitted into public institutions with injuries of this description, have received them while labouring under habitual intoxication, and very frequently in consequence of it.

The delirium, which is the subject of our essay, is also extremely liable to occur during the progress of fevers, and other inflammatory complaints; forming another complication, perhaps equally difficult to manage. As in this and the former instance, the patient is exposed to an antiphlogistic regimen and treatment, a part of which consists in debarring him from his accustomed stimulants, it is not an uncommon impression that the disease is aggravated by such regimen and treatment, in general, as well as by the particular privation to which we have referred it. Thus, in such cases, bleeding is frequently considered as increasing the tendency to the delirium; and advice is consequently given rather to suffer an inflammatory affection to continue, even at some risk of its exacerbation and future permanence, than to check it by a remedy which is capable of producing a condition much more to be dreaded. I have never been able, among numerous instances, to discover any foundation for this opinion. It appears to me to be founded on a vague generalization, which refers all remedial means to two general classes, and considers these, as well as the sthenic and asthenic states of the diseased system, to be in all cases diametrically opposed to each other. To this celebrated hypothesis, in a certain degree true, but involving the most serious error, the present is not the proper place to reply. Suffice it to say, that opium and alcohol act in modes differing very materially from each other, and from the more simple stimulants; and that bleeding, purging, and low diet are not the opposites to either of them, or are so but to a very limited extent, and under fixed and definite circumstances. Of the manner in which these articles act, with relation to the disease in question, we have yet to speak;—a knowledge of which is to be gained solely from the careful examination of facts, and not from vague theories. I am not afraid to deny roundly, that there is any evidence that bleeding and the antiphlogistic regimen in any degree promote the formation of delirium tremens. We shall revert to this very important point, when we come to the treatment.

Character of the Disease.—In few instances, perhaps, is a more striking and generally correct idea of a malady conveyed by its mere appellation, than in the present instance. The most peculiar and glaringly obvious characteristic which it assumes, are the delirium, and in almost all cases, a peculiar and incessant tremor. The delirium, however, is of so peculiar a kind, as of itself to furnish, almost universally, the means of distinguishing the complaint. Besides tremor and watchfulness, it is marked by the occurrence, to the disordered fancy of the patient, of *apparitions*. Every thing, in this singular condition of the system, indicates a highly increased activity of the mental functions. Those affected by it continue, day and night, in one incessant excitement, constantly talking, thinking, fancying, and engaged in restless activity. In no respect, however, is it more curious than in the production of a belief in the presence of unreal objects, or of persons and things really absent. One patient sees dogs, horses, cats, mice, and other animals, continually crossing his room, or remaining in it; and abruptly interrupts his conversation with his physician, by pointing them out to him, and insisting upon their real existence in open sight, in spite of all persuasion. Another sees persons whom he knows, and holds conversation with them, and sometimes complains of the loss of sleep from their continued presence. Sometimes they are in unnatural situations—mending the roof, or pulling down the walls of the house. A patient, whose case is given by Dr. ALDERSON,* and who was obviously affected with this disorder, kept an oyster cellar, and first became aware of his own deviation from health, by discovering the unreal character of a quantity of phantoms of oyster shells, scattered over the floor, and which he was stooping to collect. A patient of Dr. KLAPP'S,† was troubled by two men, who were employed in pulling off his bed clothes with long iron hooks; and next morning the same heroes of his imaginings had ascended to the cupola of a palace, built, like that of the wood-demon of Silesia, *pro hac vice*, and were amusing themselves with boxing there. Not content with these gymnastic performances, they finished by beating their unlucky spectator very severely. Dr. ALDERSON'S patients repeatedly complained of the infliction of severe bodily pain by these productions of their own disordered intellect. A patient, in the Pennsylvania hospital, was found, one morning, excessively fatigued with holding up the wall, which he conceived to be falling. In a few instances, though this is by no means a frequent occurrence, the sick man is under a strong impression that some persons are preparing to put him to death. This apprehension generally produces a silence and quietness which is liable to deceive the practitioner, and prevent him from giving credence to the actual nature of the complaint.

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* Ed. Med. and Sur. Journ. vol. 6. p. 288.

† Eclectic Repertory, vol. 7. p. 259.

For further instances, some of them extremely amusing, of delirium of this description, the reader may consult Dr. KLAPP's papers, that by Dr. ALDERSON, and Dr. HIBBERT's extremely curious essay "On Apparitions." In the latter little work is contained an account of the celebrated case of M. NICOLAI, of Berlin; who, from causes of a totally different nature, was affected for a length of years with a similar succession of these "unreal mockeries."

My friend, Dr. CONDIE, has remarked, that there is a general preference, among these ghostly appearances, for a black colour; a circumstance which he conceives may serve, at a future time, to illustrate some point of the pathology of the affection. In many instances, within my observation, this has been verified; and black cats, dogs, mice, &c. have been the dramatis personæ; but in other cases, where human personages have appeared in the panorama, I have not heard any remarks that they differed from their usual complexion.

Another striking peculiarity which we have to notice, is the incessant activity of the muscular system. This is, in fact, a corollary from the description which we have already given, of the restlessness of the mind. The constant succession of thoughts and emotions, which pass through his brain, seem to keep the patient in an incessant exertion. He starts abruptly from the bed, to converse with, or avoid, the phantom figures which infest him; and continues on his feet, anxiously or cheerfully looking about him, even when reduced to the last extremity of weakness. Patients in this condition will ascend to the window in spite of remonstrance, when they are, at the same time, so weak that the slightest push will overthrow them, and when the pulse has ceased at their wrists, and a few minutes more are about to relieve them of all their earthly troubles. Their exertions exhaust them so much, that it fairly admits of inquiry, whether this is not really the ordinary cause of death in the present distemper.

The incessant activity of mind and body, which I have endeavoured to portray, continuing throughout the night, produces a constant *watchfulness;* which appears to be coeval with the distinct and definable existence of the disease. When the patient enjoys sound and continued sleep, according to my observations and inquiries, he unfailingly recovers.

The *tremors* we have already mentioned, as a very general, though not universal, character of the disease. How far they are produced by the affection of the mind, and how far by a deranged action of the nervous cords of communication, or whether they be owing to fatigue, I shall not endeavour to ascertain.

Convulsions are described by most writers, as of frequent occurrence in delirium tremens. At this I am rather surprised, as such has by no means been the case, within my observation; those affections taking place so rarely, as to have induced me to believe, that they were not a constituent part of the disease, but merely accessory to it. One thing, at least, is certain, that delirium tremens is capable, in numerous instances, of existing independently of them, and of proceeding to a fatal termination, or a cure, without them.

I have now described those appearances, which have seemed to me to constitute the disease. They are all of the class which have been denominated *nervous.* It is necessary, however, to truth and science, to give a sketch of the condition of the system at large; in order to escape that favourite error of medical minds, an exclusive attachment to individual classes of symptoms.

Pain, which is so general an occurrence in disease of almost every species, and which is described as taking place in this complaint, by Dr. SNOWDEN, has never been observed by me in delirium tremens, either in the head, or any other part of the body. On the contrary, the occurrence of this state of the nervous system, seems, in an extraordinary manner, to supersede pain which may be actually existing at the time. Patients in this condition seem never to experience any suffering from fractures, though they may be, at the time, subjecting these to the most constant friction and concussion. And when this delirium supervenes upon a pleurisy, or other inflammatory affection accompanied by pain, the principal disease seems to disappear, even to the eye of the experienced physician, to be reproduced at a later period, when the brain and nerves regain their ordinary tranquillity. A striking instance of this will be narrated, in a case appended to this paper.

Increased heat, like pain, a symptom of so many diseases, has never occurred in the cases under my observation, unless where it already existed, as the product of a previously existing malady. *Abdominal heat* is included in this observation; as we shall presently have occasion again to remark.

In this outline, we conceive it necessary to advert, in a particular manner, to the condition of certain organs, the derangements of which are so generally associated with those of nearly all others, that physicians are frequently led to suppose hypothetically, or to take for granted, their derangement in almost any given case. Habits of this kind, combined with the increased attention lately drawn to the affections of these parts, by a pathology, which may now be said to be the prevalent one of the day, have, we think, had their share in extending the impression or presumption, that delirium tremens was a disease primarily seated in the stomach. A pupil of the school of BROUSSAIS, who had not studied, in a particular manner, the disease before us, would be very apt to suppose, previously to a careful investigation of actual cases, that such was the fact; and in this he would find himself anticipated by Dr. KLAPP, who has adopted a similar theory, and made it the basis of his therapeutical directions.

Several of my medical friends have informed me, that they have met with cases of this affection, in which various symptoms of gastric derangement co-existed with the peculiar delirium; and Dr. BROWN, of the New York almshouse, mentions a foul appearance of the tongue as of frequent occurrence. The practice of the Philadelphia almshouse also has been referred to, as affording instances of this combination of symptoms. I have not been able to discover any of these stomachic symptoms, excepting where they were fairly referrible to the previous existence of another malady. In some instances, delirium tremens had supervened on some other distinctly characterized disease; and this last might occasion a foulness of the tongue, and a bad taste in the mouth, with eructations, vomiting, and soreness, heat, and pain at the epigastrium. In many cases, and of a kind frequently confused with these, we had to deal with a direct irritation, arising from the previous intoxication. Drunkenness itself produces a fever, with gastro-cephalic symptoms; and under these circumstances, we could hardly fail to look for such appearances as we have described; and it would be by no means a fair inference from these data, that a delirium subsequently produced by the *abstraction* of the morbific cause, could depend on, or necessarily imply, the existence, at the same moment, of an irritation directly produced by that cause itself. It, however, appeared to me that these symptoms were positively absent—had actually disappeared, in a great majority, if not the whole, of the cases, before the delirious condition actually commenced; at least with the exception of a slight foulness of the tongue, an appearance which is known to require time for its removal. This distinction is one of the very highest importance, possessing the strongest and most direct bearing on practice; the gastric pathology of this disease having given rise, on the one hand, to an emetic treatment, and on the other, among the pupils of the modern school, to the more free inculcation of blood-letting—a remedy which I am bound to say, I do not believe to have any, the least material, control over the complaint; while, at the same time, it is highly destructive of life, and appears directly to diminish, in a most powerful manner, the strength which the system possesses, and so much needs, to enable it to contend against the approach of death.

Impressed with these considerations, I have given my mind for some years particularly to the establishment of the point, whether decided symptoms of gastric, cephalic, or any other inflammatory affection, existed as a necessary or prevalent part of the appearances commonly entitled *mania a potu;* and the result has been the conclusions above stated. I am sensible that these will be found to differ materially from the reports given by some practitioners; but I cannot avoid ascribing this circumstance to their confounding several distinct affections with that under consideration; as, for example, actual intoxication, a real bilious fever, an ordinary mania, either produced or not by this cause, and possibly, in some instances, an epileptic attack.

In the cases at the Pennsylvania hospital, very frequently, either the interruption of the narcotic stimulant to which they had habituated themselves was made on their admission to the house, and the disease commenced under our eyes; or, in other instances, the individuals affected belonged to a more respectable class in life. In both these cases, nothing appears to have occurred calculated particularly to complicate the disease. I have been told by some of my medical friends, that, in the almshouse, a large portion of the patients affected with this disease, were admitted while labouring, at the same time, under the delirium produced by an irregular interruption, and the effects of a fresh stimulation, which served to produce a direct irritation in the stomach and bowels. These circumstances were aggravated by others, like them the result of misery and bad management. To these causes my informants referred the more frequent complication, in that institution, of delirium tremens, with a gastro-enteric irritation, and, perhaps, with a true phrenitis. Yet the experience of Dr. Snowden, in that institution, has not led him to record a single symptom of gastric disorder, except vomiting.

A foul taste in the mouth has not been a frequent, or by any means a prevalent, complaint among the patients, whom I have seen affected with this complaint. *Vomiting* was seldom so; and as every one of the symptoms which I have considered as essential, occurred, in a large number of cases, unaccompanied by the latter, I could not deem it at all a necessary constituent of the disease.

Local increase of heat in the region of the *epigastrium.* This has been considered, and justly, as one of the most important indications of gastro-duodenal irritation. In the smaller number of cases of delirium tremens, which occurred under my care, since I became better acquainted with the French pathology, I have searched diligently for this symptom; and can say with confidence, that it has not been present in them. At a former period, my attention not having been directed to this symptom with the same sense of its importance as at present, it would not be proper to speak in an equally positive manner; but, amid a large number of patients, it has certainly not been a frequent occurrence.

Any particular increase of *heat in the head*, I do not remember to have ever noticed; and it was positively absent in a number of cases, specially examined for the purpose of ascertaining the fact.

The *pulse*, another indication of so much importance in the cognizance of inflammatory complaints, is, according to my observations, generally weak. It has never been greatly increased either in force, volume, or frequency, even when the delirium succeeds to a previously existing inflammatory disease; and it is in these instances alone that it is materially increased at all. In the progress of the malady, it rapidly diminishes; and it generally becomes imperceptible at the wrist for one or more hours preceding death, thus presenting an appearance of successive exhaustion.

The same gradual destruction of powers, resembling that produced by fatigue, has been already mentioned as occurring to the *muscular strength*.

Of the state of the *excretions* it is difficult to speak. *Constipation* has been almost universal; so much so as to give rise to the impression, that where evacuations of the bowels took place, they were owing to a complication of the original and more important disease. As, however, all the patients had taken more or less opium, this circumstance is quite sufficient to account for what we have remarked, without the necessity of supposing it to be a part of the disease. The urine is generally scanty; and the skin harsh and dry. In many instances, however, the skin is bathed with a profuse perspiration. Where this is apparently the effect of opium, it has always seemed to be a favourable sign.

The *appetite* is in most instances entirely superseded; although digestion of small portions of food will frequently go on, without any apparent derangement. When the mind is restored to its ordinary healthy condition, after a sleep of sufficient duration, a moderate appetite immediately returns, and the patient is capable of eating and digesting a light meal—a striking proof of the absence, in the unmixed cases, of any gastro-enteritis; as in those where the latter complaint had existed for a similar period, no convalescence could be so rapid as, at once, to restore the power of digestion.

Pathology. Having thus completed a sketch of the external appearances generally seen in delirium tremens, we proceed to inquire what inferences it is legitimate to draw, respecting the condition of the internal organs, and to notice the points in which this differs from health.

Dr. Sutton does not give us any pathological reasoning; but contents himself with indicating the practice which he found successful—a practice which has saved a great number of lives, and from which we are shortly to draw inferences of our own. He might certainly have done much worse; as a hypothetical theory, or one not based upon an adequate comparison with facts, is likely to prove far more injurious than a practice, empirically established, and generally successful, though liable to occasional misapplication, from the want of a clear view of the purposes to be answered, and of their frequent complications.

Dr. Armstrong, in his "Account of the Brain Fever of Drunkenness," does not pretend to give us any very deeply considered pathology; but evidently refers the disease principally to a morbid condition of the brain. He appears to have fully distinguished it from the epidemic fevers which prevail in England; but seems still disposed to see an analogy between them. I apprehend, at least, that a very clear and important line of demarcation is capable of being drawn between delirium tremens, and any of the more ordinary forms of febrile delirium: certainly this is the case with any commonly to be met with, either in nature or in descriptions.

To refer the existence of a delirium to a vicious condition of the brain, is the first and most natural resource of a physician to whom the case is proposed; and it is apprehended that such was the general opinion of the medical world, till the epocha of the publications, and clinical instructions, upon this subject, of Dr. Joseph Klapp. This experienced practitioner, to whose opinions an additional weight was derived, from his public station as a physician to the Philadelphia alms-house, has extended to delirium tremens, the gastro-enteric theory, which has become so popular at the present day. Of the labours of Hamilton, Abernethy, and Broussais, as well as of the still later French pathologists, we would be far from wishing, were it possible, to diminish the reputation: they have, it is to be hoped, inestimably augmented the curative resources of the physician. But we apprehend that, in this instance, the reference to the stomach of diseases, whose symptoms are most conspicuous in other organs of the body, has been carried too far, and has led to erroneous impressions, and a practice not the most successful. We shall proceed to consider it; taking for our guides the publications of Dr. K. in the Eclectic Repertory, and the able thesis of Dr. Staughton, which is generally considered as the best setting forth of the opinions of the former practitioner, at a period when they had become more matured.

The grounds of the doctrine in question, as there stated, when arranged in a methodical form, may be fairly referred to the following heads; and we shall endeavour to express them so as to give them their fullest force.

1. The causes which produce delirium tremens, or mania a potu, are of a kind calculated, a priori, to produce the impression that an irritation exists in the stomach; as this affection never occurs but after a debauch.

2. On dissection, the corresponding appearances are found. The dissections, made or seen by Dr. Staughton, uniformly disclosed an inflamed stomach; and similar appearances have been found by others.

3. Vomiting, a foul tongue, the discharge, in many instances, by the effect of an emetic, of a thick, ropy, viscid fluid, of about the consistence of boiled tar, generally of a light brown colour, but sometimes quite black; after the free removal of which, "recovery *most probably* takes place." All these are undeniable symptoms of gastric disorder, occurring in the disease under review.

4. The analogy of other gastric affections shows the very frequent occurrence of delirium as a symptom of them.

5. The success of vomiting, as a remedy, is considered by its advocates as sufficiently great to form an additional argument in its favour, upon the principle of the *juvantia* and *lædentia*.

To the first of these arguments we reply, that it is undoubtedly true that the application of irritating substances to the stomach, usually precedes an attack of delirium tremens; but it is equally so, that this application must have *ceased*. It is not *during* a debauch, but *after the termination* of one, that we commonly see the complaint occur. And in the instances where this disease follows the use of opium, although this substance is certainly possessed, in some respects, of stimulating properties, few physicians, we imagine, would class it among the causes adequate to produce gastritis or gastro-enteritis.

To the post mortem observations of Dr. STAUGHTON and others, there seems, at first sight, to be more difficulty in replying. It must be acknowledged that marks, more or less decided, of gastritis and gastro-enteritis have been found pretty generally in the cases examined; and this is sufficient, according to the apparent habits of some morbid anatomists of no mean standing, to fix this as a leading cause of the symptoms. "Why need you search," it may be inquired, "for any further origin? Here is evidence of gastritis; and gastritis is capable of producing delirium! To ascribe the malady to any additional cause, is to offend against the Newtonian rule of philosophizing, by which we are forbidden to assign any more causes for a phenomenon than are sufficient to produce or explain it."

Such might be the language of one who was disposed to set this argument in a strong point of view; but we conceive that some very simple reflections will show it to be inapplicable. Gastritis is unquestionably capable of producing delirium; but it is yet to be shown that it can produce a delirium of this species. We are considering a mental derangement of a peculiar kind, possessing some very striking and characteristic attributes, and which, with extremely rare exceptions, is *never* found to occur under other circumstances than the familiar ones fully described above. It is, therefore, inconclusive to show that gastritis exists, and that such an affection may produce delirium; the question being precisely whether it can produce one of this kind. Again, the delirium of which we are speaking never occurs until after the removal of that irritating agent which we are fairly entitled to indicate as the cause of the gastritis; nor, in fact, until the direct symptoms of gastric disorder have in a great measure subsided. The heat of the skin, soreness of the epigastrium, and, in a great majority of cases, the vomiting have all disappeared; and yet we are called upon to remove the consecutive delirium by attacking a gastritis, which was not able, while at its height, to produce any symptom of the same kind. In the fatal cases, it is by no means improbable that the simultaneous continuance of an uncured gastritis may, in many instances, have contributed to shorten the patient's life; and the redness of the stomach found after death has been set down as evidence of the gastric origin of a cerebral disorder, capable, as the great majority, at least, of cases show, of coming into existence after all the distinct symptoms of inflammation of the stomach have entirely disappeared. Another argument may be drawn from the remark that the patients opened, had all been subjected to the action of highly irritating substances;—to that of large doses either of alcoholic drinks, or of emetic tartar. Is it fair, after the physician has himself violently irritated the stomach, to assign its redness after death as the cause of the disease he has attempted to remove? These remarks show the importance of not confining ourselves to the mere inspection of dead bodies, in investigating the nature of diseases, but of studying them *physiologically*, and of carefully comparing the morbid appearances with the derangement of the functions exhibited during life, and with the effects of the remedies employed. By thus analysing disease from an extended view of every accessible quarter, we avoid a part of the innumerable errors to which we are exposed by our limited means of information.

Vomiting and a foul tongue were, as we have already remarked, generally absent in the cases under our own inspection, amounting to a considerable number. Where they do occur, these appearances are probably owing to the previously existing irritation to which we have already alluded. It is by no means clear that these are symptoms of frequent occurrence. Authors mention them but slightly. Dr. SUTTON scarcely recognizes their presence in his sixteen cases; except where there existed typhus fever, scarlatina, or some analogous complication or precursor. Dr. BROWN, of New-York, whose accuracy of discrimination is great, and is aided, on this point, by an acquaintance with the writings of others more general than is evinced by many, and is furthermore maintained by the description of cases, has mentioned a foul tongue in only two instances, out of eight; and one of these, from the narration, appears to have been a low typhus of twenty-one days' duration.

A reply to the argument drawn from the analogy of other gastric affections, is contained in the remarks we have already made on the morbid dissections.

Finally, with regard to the inference from the juvantia and lædentia, we shall endeavour to show, when speaking of the *treat-*

ment, that the success obtained by vomiting has not equalled that which has followed the employment of different means. Here, in fact, the pith of the whole matter rests; but we shall further attempt to prove, that a partial success by vomiting is by no means a conclusive proof of the correctness of the gastric pathology.

Having thus expressed the grounds of our dissent from a pathology frequently assumed for this disease, we proceed to develop our own views. In doing so, we apprehend that little difficulty will be found, if a deliberate view be taken of the circumstances to which the patient is exposed previously to the production of delirium.

The known operation of spirituous liquors, and of opium, on the great organs of the human body, consists in an excitement of the circulation, accompanied by a depression of the cerebral functions. On the heart, the action of these poisons appears to be unquestionably stimulant;—there is no doubt that it greatly increases the distention of the arteries and the force of the pulse. But on the faculties of the mind, a great depression is the *leading* effect. In moderate quantities, and during the commencement of their operation, a state is produced, having a brief duration, which is frequently considered as exhibiting an increased activity of the mind. Cheerfulness, courage, and loquacity, are what generally characterize it; but its nature differs in a prodigious variety of ways, according to circumstances not well understood in the idiosyncrasies of the individuals subjected to it. Thus some are morose and irritable, others sullen, &c. In every instance, however, the intellectual faculties are deprived of their usual accuracy, and after a very short interval, somnolency and a general diminution of all the mental powers, are the unfailing successors. Hence, we have as the universal course of things, first, the fever of drunkenness, and then drowsiness, or a diminution of the activity of the mind. These effects are reiterated, every time that the poisonous draught is renewed; until, by constant repetition, the organs become more and more callous to the impressions they receive, and the well known *accommodating power* of the system accustoms it to bear the unwholesome agent with comparative impunity.

Now, it is in this state of habitual stimulation that the delirium is produced; but not till the stimulation is suspended. The patient is suddenly interrupted in a long continued course of hard drinking. What is then the consequence? The temulent fever abates or subsides, from the abstraction of its cause; and the system immediately feels the want of its accustomed narcotic. It has been gradually changed, until the depressing agent has become necessary to the preservation of an approach towards health; without it, the patient is unable to sleep, and his cerebral and nervous systems are thrown into a state of the very highest excitement. Who can fail to perceive, in this, the production of an excess of activity, a superabundance of vitality, in the brain and nerves, requiring the habitual narcotic to keep it down to its ordinary standard?

This view of things ought not to be classed with ordinary hypotheses, or synthetic theories. However we may differ as to correctness in the use of language, a point in which it is peculiarly difficult to obtain common consent; the above is an expression of fact, of an occurrence which actually takes place, and is *obtained* by an analytical process from nature. The patient has been accustomed to the impression of an agent which diminishes the activity of the mind; it learns to obtain an approach to the healthy equilibrium, by resisting this narcotic; and, upon its sudden removal, passes immediately into a condition of inordinate action. Physicians who differ in the meanings which they attach to words, from a bearing which these have, or are supposed to have, upon other doctrines or principles, can hardly avoid recognizing here a common fact, having its existence in nature, however they may employ a different phraseology to express it.

If we analyse the condition of the patient at this time, we shall find every symptom indicating a prodigious excess of activity in the cerebro-nervous organs. The brain may be said to perform five or six times as great a task as in common circumstances. Not only is the ordinary waking condition continued during the whole twenty-four hours, the patient being incapable of sleep; but during all this time, the mind is in the very liveliest excitement. Incessant talking, and the incessant performance of voluntary motion, characterize the malady; and in addition to this, the mind not only apprehends the presence of objects really presented to the senses, but forms a prodigious succession of ideal images. And when relief is obtained, the first sign of the disease being broken in its violence, is the obtaining of repose.

In this violent excitement of the *functions of relation*, do the muscles partake of the increased power? I apprehend that they do not. They are thrown into the most incessant, and sometimes, while strength yet remains, violent exertion, by the agency of the nervous apparatus: they are incessantly induced to act by the operation of the will. But if we examine a patient labouring under this delirium, we shall find his average muscular strength decreased, and as the disease advances, very much so. At the very time when he is reiterating his efforts to pass through the door, or to throw himself out of the window, the attendants have to be careful how they arrest his progress, as the slightest touch may throw him down; and frequently he walks about the room with the utmost eagerness, when within a few minutes of the termination of his being.

I would go so far as even to say, that the patient appears to *die of fatigue*. The contractile force of his heart diminishes, with a progression which may be distinctly watched, until the minute and thread-like pulse at the wrist vanishes quite away; and this is accompanied by a corresponding ebb of the muscular power. Something like this, indeed, seems to be the generally received opinion of the cause of death in most diseases. The philosophy of Dr. Broussais refers it to fatigue, or exhaustion of the organs; but this means, in general, of the viscera of organic life, whereas we here include the muscles. If, according to the ideas of Bichat, we refer the immediate production of death to a cessation of action in the muscles of respiration, and the consequent want of aeration of the blood, it will harmonize not badly with the views expressed above. What then is the condition of the parts which carry on the motions of organic life? Here we again meet the gastric doctrine of Dr. Klapp. We have seen that there generally exist the remains of a declining irritation in the *stomach*, from the debauch which preceded; except in the case of opium, in which this is very questionable, as it is at least extremely doubtful whether opium can produce any irritation in the stomach. In poisoning by opium "the condition of these organs is usually not much varied from the healthy state."* Such is the statement of Dr. BECK; and several dissections which I have made have confirmed it; the stomach being found enlarged and flabby, but very little reddened, even when it had been subjected to the action of violent emetics. In one case, in which the stomach tube had been employed, and no emetics administered, the stomach was of enormous size, but manifested no signs of sanguineous irritation.

Again, when the disease is cured by a long and sound sleep, a result which frequently takes place in twelve hours, the patient, in two or three hours after awaking, generally feels a return of appetite; an occurrence certainly contradicting the idea of the stomach having been inflamed. An irritation of such violence could not reasonably be expected to disappear so suddenly, unless where there had been some very copious discharge. The stomach, during delirium tremens of any severity, is in a state of entire inaction. The sufferer cannot be prevailed upon to take food, or more than a mouthful. He is like one under the pressure of important and engrossing business, who has not leisure to think of eating. Vomiting, so far from generally existing, as in gastritis, seldom occurs spontaneously, and is produced, according to those who employ it as a remedy, with great difficulty, and only by the use of very large doses of emetics. The *bowels* are slow, and require a laxative or an enema, after the relief has been obtained by opium: this may however be owing to the opiate practice; and in the emetic treatment, they are liable to be affected violently, and to require opium to give them tranquillity.

To the condition of the *circulating organs*, we have already alluded, in speaking of the heart. I do not know that there is any peculiarity in the contractile action of the arteries; the pulse seeming to vary in tolerably exact proportion to the force of the systole of the heart. The *capillaries* of the surface are generally rather empty, and the skin, cold and pale. The different *excretions* and *exhalations* are diminished, excepting that the patient is sometimes bathed in a profuse perspiration.

In the 91st number of the Edinburgh Medical and Surgical Journal, which has just come to our hands, we are furnished with a brief notice of delirium tremens, in a review of the Medico-Clinical Reports, for 1823–4, of professor Carlo Speranza, of Parma. This yields us a glance at some of the authorities from the interior of Europe, not accessible to us in this remote part of the world. Dr. Speranza determines in favour of the pathology and treatment recommended by professor Joseph Frank, viz. those of an absolute phrenitis, or encephalitis as it is now more usually termed. We pass over a discussion in which the term "*tremens*" is objected to, on the ground that tremor is not always present; while "*tremefaciens*" is unaccountably substituted for it. Dr. S. objects to "delirium" as the generic name of the disease; because he considers the perversion of the mind to be a mere symptom, while "encephalitis" is the real malady. We will only reply, that the term "delirium" expresses exactly what is wanted, namely, the whole extent of our actual knowledge with regard to the essence or nature of the disease; while "encephalitis," at best, implies an hypothesis, and one which is certainly erroneous. Dr. Speranza, after Frank, decides against the use of opium, and in favour of an antiphlogistic treatment; several eminent names being cited in confirmation. The authority of these latter, as quoted by the reviewer, merely applies itself generally to "derangement by habitual intoxication." We have already adverted to the ambiguity of such phrases; and endeavoured to show that very different states are included under them. We are very sure that the above practice would destroy the great majority of our cases, without effecting any material benefit. We shall discuss this point, when we come to consider the *treatment;* our account of which, with an analysis of some of the printed opinions, is intended for the next number of this Journal.

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* Beck's Med. Jurisprud. v. 2. p. 401.

ARTICLE V.—*Morbid Anatomy, considered in its relation to the Practice of Medicine.* By THOMAS D. MITCHELL, M. D. of Frankford, Pennsylvania.

THE object of these remarks, is to show the fallacy of autopsic examinations in determining the nature of disease. There appears to be, at the present time, especially among those who yield to the influence of the French *theories*, an unusual predilection for this method of attaining true pathological views. Hence, in all their writings we shall find, that the use of the knife after death is regarded as a dernier resort, an infallible mode by which to ascertain with precision the seat of morbid action. The symptoms may have been unequivocal, the ruling epidemic, of unquestionable character; yet all is to yield to the unerring standard of a hasty dissection, the result of which is supposed to settle the matter unalterably.

Now, against all this, however much popularity may support the practice, I feel myself bound to protest. Not that I object to careful examinations of the body after death; by no means: these are frequently very desirable, serving not only to gratify the curiosity attendant on obscure cases, but also to satisfy the practitioner himself, as well as the friends of the deceased, that all had been done that could be effected, and that medicine was inadequate to a cure. In addition to this, dissections necessarily refresh the practitioner's anatomical knowledge, and keep alive in his mind the peculiarities of the different structures of the animal economy. It is the abuse of dissections only that I condemn; their perversion and misapplication, by which theoretical views are attempted to be established, which facts and similar dissections subsequently overthrow. If the symptoms of a case, its relation to some prevailing disease, or its existence in a family strongly characterized by the hereditary predisposition, be not competent to determine its true character, I defy the knife of the anatomist to settle the difficulty, however dexterously it may be managed, and however great a display of morbid structure may be thus developed.

My objection is applicable, not only to him who takes up the knife to confirm opinions supposed to be fixed, but also to the inquirer who dissects with the view of forming new theories of disease. Both operate in the dark; and it is impossible that any permanently satisfactory conclusions can result to either. Let facts be heard on this subject.

A. B. has laboured for a long while under all the symptoms of pulmonary consumption. Not simply by one physician, but by the combined researches of a consultation of unquestionable eminence, the character of the disease has been unhesitatingly established. The curative means adapted to the morbid state of the parts supposed to be affected, are fully applied; but without any satisfactory results, and the patient presently dies. Anxious to confirm their pathological views, the medical gentlemen in attendance resolve on making the usual examinations; when, lo! a perfectly healthy state of the lungs confounds all their calculations.

The liver only is affected, and that but very partially. Such a case has actually occurred.

Let us suppose that the body of the patient just noticed, had fallen into the hands of some one unacquainted with the history of the case, but anxious to examine every subject as opportunity offered. Is it probable that the least suspicion would have followed an examination of the chest, that the patient had died of pulmonary consumption? Is it not more probable that a disciple of BROUSSAIS would have detected gastritis or gastro-enteritis only, or some other affection founded on a morbid state of the mucous membranes of the stomach and intestines, although no such disease had existed? But it may be said by one whose medical faith fastens on no object but the morbid appearances of parts, were not the physicians who pronounced the case to be phthisis pulmonalis altogether mistaken? Did not the post mortem examination prove the fallacy of their opinions? I answer in the negative. Dr. Rush, and some others more indistinctly prior to him, taught the doctrine, that a metastasis of disease sometimes occurred in the very act of dying; and that on no other principle could an organ be obviously and violently deranged, and yet exhibit on dissection no traces of disease. The cases of alternate morbid action in the brain and uterus, affecting the one with excruciating pain, and by its agency in the other producing wild delirium, are insolvable on any other principle. Cases of this kind are not unfrequent. During the fit of pain in the uterine region, the brain is unaffected, the patient sensible and aware of all that transpires around her. No sooner does the uterine fit begin to subside than the brain is seized, and presently the patient is furious. In this condition she dies; and, although dissection shall discover a highly injected condition of the uterine vessels, the brain will be found to exhibit a healthy appearance.

Is not every one, conversant with gout, acquainted with the fact, that a patient labouring under that disease in the great toe of one foot, shall retire to bed and be aroused from his slumber with burning lancinating pains in the corresponding toe of the other foot, while the toe originally affected shall exhibit scarcely any marks of morbid action? If these things are so, and that they are is obvious from daily experience, why shall we not apply the principle which seems to regulate them to other cases, equally inexplicable by the usual modes of medical reasoning?

But, it may be said, is it credible that a metastasis of inflammation could occur between the brain and uterus, and if so, on what principle can it be explained? I answer, that the difficulty of solving the problem cannot alter the facts of the case; and there is nothing more incredible in the translation of inflammatory action from the uterus to the brain, and vice versa, than in the metastasis of gout again and again from one toe to another, which I have seen occur several times in the same patient.

I am indebted to a medical friend for the history of a case, which would perhaps be still more puzzling to those whose main dependance is on autopsic examinations. A patient died after a very short illness of a disease, so indistinctly marked as to be involved in great obscurity. Not a symptom existed to warrant a suspicion of disease in the chest; but on examination after death, a large quantity of pus was found in one side of the chest, and the lung of that side nearly destroyed. Now, who that knew nothing of the previous history of this case, would have conjectured that a patient thus situated had exhibited no symptom of pulmonary affection?

The deceptious reasoning founded on examinations after death, has been the occasion of much confusion in relation to yellow fever. Patients have fallen victims to this malady in innumerable instances, whose disease had been otherwise named, for no other reason than because the stomach and other parts failed to exhibit the appearances supposed to be essential; while others have been classed among the victims of yellow fever, whose systems never felt its influence, merely because such a condition of parts existed as was thought to characterize that disease. The most experienced writers on this terrible pestilence, assure us of the fallacy of dissections; and that the most marked cases of yellow fever, have frequently been unaccompanied with those morbid appearances, which dissection is thought to furnish as decisive of the existence of the disease. It was not the wild and chimerical notion of an enthusiastic theorist, but really and in truth a matter of fact, "that morbid action is sometimes so violent, as to transcend the point or grade of inflammation;" and for this reason, and none other that can be imagined, have examinations after death from yellow fever failed in many instances to display an inflamed condition of the stomach. And yet the absence of this very condition of the primæ viæ, was offered in my hearing but two or three years ago, as proof unanswerable, that an individual, whose disease was pronounced to be yellow fever, did not die of that malady. BICHAT and others have noticed a very important fact, that has not a little bearing on the present question; viz. that the nervous membrane of the stomachs of persons who had suffered capital punishment, was frequently injected to such a degree as to denote inflammatory action, although no symptom of gastric derangement had been apparent immediately prior to the time of execution.

In the year 1810, a man was brought into the Philadelphia Almshouse, who had received an injury somewhere in the vicinity of the left clavicle: he was intemperate, and laboured under a partial degree of delirium tremens at the time of his admission. On the day of his death, he was prescribed for by the attending surgeon, who saw nothing in his case of an alarming or even suspicious character. There was no evidence of any diseased action in the chest, much less of actual disorganization in the very citadel of life. In an hour or two after the attending surgeon had left the house, this unfortunate man died. On examination of his thorax after death, an abscess was found in the pericardium, from which more than a pint of well digested pus was sponged out. That this abscess must have been the result of at least several days previous inflammation, can scarcely be doubted, and yet no correspondent symptom was apparent in the case. Is it not altogether probable that a dissection thus made, independently of an acquaintance with the previous history of the patient, would have led to a conviction that disease of the pericardium, or of the heart itself, had been manifest in the last illness of the individual?

In the year 1823, I lost a young patient, whose disease, so far as symptoms denoted, was gastritis, accompanied by a defective secretion of bile. None of the remedies that were administered, had their usual or desired effect; and at the expiration of the second week the child died. I examined the body after death, in the presence of a medical friend and several other persons, and found the liver and stomach free from disease; but the duodenum impervious to any thing larger than the cälibre of a common goose quill. The argus eyes of one in quest of inflammation of the mucous membrane of the stomach, might possibly have detected some red vessels here and there in the lining membrane of that viscus; and it may be that no examination of the duodenum would have been attempted, on the supposition that enough had already been detected, to give ample confirmation to the conjecture that gastritis had accomplished the fatal result.

In the year 1824, a female under my care, died of what proved on dissection to be a dropsy of the left ovarium. The distended and encysted mass had fallen to the right side of the pelvis, and all the complaints of pain were referred to that region. So *liable* are the best informed to be deceived, that Dr. PHYSICK actually supposed that a sac on the mesentery was the occasion of all the mischief in this case.

I might go on to detail cases of this sort from my own observation, and to quote a host on the authority of the best writers; but enough has been said for my present purpose. My chief aim has been to exhibit the folly of relying on *post mortem* examinations as a *guide* in the practice of medicine. Hundreds of dissections are made avowedly for the purpose of giving to their results a practical application, although this end is *seldom*, perhaps *never* accomplished. Sure I am, that I have not in a single instance derived any aid in the treatment of disease, from autopsic examinations, further than such dissections had a tendency to extend my acquaintance with the structure of parts. How should it be otherwise, when we see daily that dissection entirely disappoints our views; presenting structural derangement in organs, which evinced no sign of disease, and showing a healthy condition of parts, which seemed to be, so far as symptoms could give evidence, violently disordered?

A medical friend, who had made the tour of Europe, returned home a few years ago, armed at all points with the fashionable doctrine of inflammation of the mucous membranes. He commenced the practical application of his newly acquired system, in the treatment of cholera infantum, which was then the prevailing disease. He made a number of dissections, and endeavoured to convince his brethren who witnessed them, that his views were just; although some of the gentlemen assured me, it was impossible to detect that inflammation of the lining membrane, which was essential to the justification of his treatment of the disease.

The blindness of others did not, however, obscure his vision; and he felt emboldened by the very results, which destroyed the confidence of his brethren in the pathological views he had espoused. But it did not require a great length of time to convince him that he was mistaken; and he was constrained to resume the more popular and safe method of combating the malady.

Notwithstanding the specious asseverations to the contrary which are made by many, it is as true now, as it was in the days of SYDENHAM, that the practice of medicine is bottomed on experiment; and his plan of giving a medicine, and waiting to see what would be its effects before he repeated the dose, is, with a little modification, the sum total of all the therapeutics of more modern times. We must form our judgment from all those indications which go to acquaint us with the actual state of the system. The obvious symptoms of the living diseased body, and not the more deceptive appearances of the lifeless carcass, must direct us in all our prescriptions.

Let me not be misunderstood in these remarks. I am far from objecting to physiological researches; on the contrary, I think it indispensably necessary to the formation of a physician, that he be well instructed in the organization of the human body, and familiar with the functions of all its parts. Nor do I object, as has been already premised, to an acquaintance with morbid anatomy, so far as the knowledge thus obtained may serve to give correct views of the difference between healthy and diseased structure. But when it is proposed as the *sine qua non*, to mark out the straight line of pathological instruction, I not only object, but solemnly protest against it, as an *ignis fatuus*, that must inevitably deceive.

ARTICLE VI.—*Observations on the Treatment of Curvatures of the Spine.* By J. K. MITCHELL, M. D. one of the Physicians to the Pennsylvania Hospital, and to the Alms-house Infirmary.

IN consequence of the partial success of the plan of treatment recommended in a former number of the North American Medical and Surgical Journal, I have been favoured with an opportunity of seeing a greater number of cases of curved spine, than falls under the observation of physicians in the course of ordinary practice. From the more extended experience thus afforded me, I have derived increased confidence in the treatment there laid down. I am now disposed to believe that an *early* application of, and judicious perseverance in, the means suggested, will secure, in most cases, an exemption from the disagreeable and encumbering deformity to which such diseases usually give rise. I am even led to hope, that where the deformity has already become great, the patient, *if young*, may recover to such a degree, as to be able to conceal as much of the curvature as cannot be entirely removed.

It is very difficult, during the progress of antero-posterior curvature, to ascertain its immediate cause. The evidence of a carious state of the vertebræ, is never, or at least very seldom, conclusive. That such a state of the bony structure must occasionally exist, is shown by the demonstrative examinations of the morbid anatomist. But the symptoms by which we are to distinguish it during life, from disease of the ligaments and interosseous cartilages, are not yet clearly ascertained. It is not *certain*, therefore, that in any of the many cases of antero-posterior curvature, which presented all the common signs of diseased bone, the bone was truly carious; but it was probably so in all; and as, in all the cases of this species of curve, which were properly treated* by the suspensory apparatus, beneficial results followed, am I not entitled to believe, that in these, the most unpromising cases of this malady, this mannner of treatment may be recommended?

In *very young* subjects, the *lateral* or *serpentine curvature* is usually easily remedied; and that, too, without such restraint or confinement, as, in the ordinary mode of treatment, impairs the tone and vigour of the constitution, and, according to the authority of Mr. Shaw, produces augmented weakness of the more solid portions of the spine itself. But in those cases of this curve, which happen to girls just approaching the age of puberty, the cure is much more difficult. It is, therefore, of great importance to ascertain the true causes of such affections, as we may then readily prevent what we cannot easily remedy. The alarming increase of a disease so inimical to the graces of form and carriage, renders such an inquiry doubly interesting. Those who are most liable to it, move in that circle of society, in which the sentiments are most carefully cultivated, and a highly educated taste is a customary possession; and where, consequently, a distorted figure, and ungraceful carriage, will ever be considered a severe calamity. When we carefully examine the habits and customs of those who are the most usual subjects of lateral curvature, we are immediately disposed to ascribe their maladies to the following causes:

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* In several cases I could not prevail on the parents to compel the obedience of the patients; and the treatment was consequently imperfectly and irregularly applied. In some cases, the roughness of the floor, and the smallness of the apartment, denied to the patients the benefits of exercise, while placed in either the chair or spine-cart.

1st, To the too early restraints imposed on the sportive and more active exercises of girls.

A few years ago, a girl, at thirteen or fourteen years of age, was treated as a child, indulged in the sports and gambols of childhood, and permitted to make free use of the muscular system, and thus to acquire muscular vigour. It is now unfortunately otherwise. The child, at eleven or twelve, is carefully incased in a laced corset, which, with the aid of a stout board or piece of iron in front, ties down the muscles of the back, and effectually restrains the free and graceful motions of the trunk. A slight rotary motion of the spine is scarcely practicable, and to stoop is almost impossible.* Even with such a paralyzing incumbrance, the poor child might find, in robust sports, some muscular exercise; but, with the corsets, come other restrictions. While the child is permitted to lace tightly enough to emulate the form of womanhood, she assumes, and is encouraged to assume, the considerate movements of maturer life. She may dance, but she must not "pull and haul;" nor must she engage in any action by which the muscles of the spine and back are exercised.

Among the natural consequences of such management, are great debility of the muscular system of the trunk, a relaxed and atonic state of the ligaments of the spine, and such a condition of the bone and interosseous cartilage as predisposes to diseased structure.

The partial exercise of the muscular system, is nearly as disadvantageous to health, as the total want of exercise; hence girls, at the age and under the circumstances stated, are liable to considerable irregularity in the digestive actions, and to occasional deviations from a healthy state of the skin. The former is indicated by all the usual manifestations of dyspepsia, particularly a loaded tongue and unpleasant breath, irregular evacuations and whimsical appetite; the latter, by a dry and scaly eruption. The pressure which corsets too tightly applied to a young frame produce, particularly when efforts are made to form a waist before the proper time, must deprave the functions of the abdominal viscera, and impair the free motion of the ribs, so important to the salutary performance of respiration.

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* Dr. Physick thinks that lateral incurvation of the spine, depends mainly, if not exclusively, on the use of tight corsets, or other confining vestments; and declares, that in the first stage, the curve may be removed, merely by throwing aside such fetters, and using appropriate exercise.

A girl of an originally feeble constitution, or of a scrofulous temperament, is, under the circumstances stated, in imminent danger of either curved spine or consumption. The occurrence of the latter often prevents the onset of the former, by *concentrating the elements of irritation* in the lungs. The access of the former, is often, very often, followed by the latter; and most commonly, consumption of the lungs decides the fate of the patient. In a few cases, caries and psoas abscess are found in the train of curvature originally serpentine. Robust forms may resist the influence of the worst physical education; and marked curvatures of the spine, do not, in this healthful city, arise in a large proportion of the females subjected to the greatest restraint. But slight deviations from a correct form, are more common than would be supposed by one, who has not given particular attention to the subject. This deviation is, in every female case which has been subjected to my scrutiny, caused by a convexity of the spine towards the right shoulder, and a similar convexity towards the left hip; or, in other words, the line is serpentine, bending to the left side below, and to the right, above.

This direction of the curve may be traced to the second cause of lateral incurvity in growing females; viz. Errors of posture while sitting, standing, and lying in bed.

According to the present system of fashionable education, a posture nearly that of which I am now treating, is assumed for the greater part of the time passed in the school-room. The young female, taught much less needlework and housewifery than was formerly fashionable, is employed steadily at a desk, in writing, arithmetic, drawing, map-making, constructing mathematical diagrams, &c. &c. &c. With the left arm resting on the desk, and the head and left hip bent towards the left side, the pupil presents an incurvity temporary at first, but gradually acquiring a fixed character. At such desks, is passed a much greater time, than was formerly thought requisite; and when the poor girl leaves them for the harp, her posture is again that which is favourable to the production of deformity. It is surprising to see the ease with which a child, thus educated, falls into the habit of resting her left arm on her left knee, and taking, in moments of relaxation, the curve which use has rendered most comfortable. If the time which is not included in school hours were suffered to glide away, partly in vigorous and appropriate exercise, all the crookedness enforced in school, would, in most cases, be overcome by the tendency of healthy structure to maintain its natural and graceful erectness. When exercise is resorted to, the confining and perpendicular corset withholds the muscles and ligaments of the spine from all participation. But the lessons are of such a character, as to difficulty and length, that a girl of any spirit and emulation cannot indulge in exercise, save of the mind.

According to the notions deduced from the former treatment of spinal diseases by recumbency, we might suppose that the couch of repose would tend to exert a counteracting influence, and would, partially at least, restore the straightness of the figure. Just the contrary effect is produced by the bed. For reasons well known to physicians, most children sleep on the right side. In this posture, in a feather bed with a high pillow, the right shoulder sinks deeply into the down, or is thrust towards the right side, the head is extended to the left, and we have again the *common* curved condition of the spine. Is it surprising that a delicate girl, whose general health is impaired by so many causes; whose inspirations of even the foul atmosphere of a crowded school, are unnaturally limited, should *bend* beneath the weight of such a host of causes of crookedness? Nay, is it not wonderful that any female form should remain perfect under such a system?

Having pointed out the prominent causes of such incurvities, it will be an easy task to show the mode of preventing them.

And, 1st. Let no child wear corsets until the form has attained to nearly its full height, and acquired strength and consistency.

2dly. Let such exercises be permitted, and indeed commanded, as are likely to give full play to the muscles of the trunk and spine. The dumb-bells, and more particularly a spine-swing, without the suspensory apparatus, are among the best means of this kind.* The act of polishing furniture by rubbing it, is also a useful exercise of the same class of muscles; but to afford a full benefit, the motion of the arms should be from side to side rather than backwards and forwards. The writer of this paper has often admired the erectness and fine muscular development of the Chinese boatmen; who, in the propulsion of their vessels by "*sculling*," perform such a lateral motion as is here suggested. In them too the muscles of the back are remarkably beautiful. While I *insist* on the exercise of the muscles of the trunk, I would not be supposed insensible to the value of exercise of all kinds, particularly in the open air.

3dly. Great pains should be taken to prevent the errors of posture so common in our schools. The desks should be so constructed, as to admit of the pupil's standing and sitting alternately; while much less time should be consumed at the desk, at which the pupil should not be permitted to prepare such lessons as do not *require* its use. It has been supposed that seats without backs are most suitable; but on such seats the pupils will assume the lounging posture, which throws the left arm on the left thigh for support, and exhibits a very ungraceful incurvity of the spine. When a child is not in muscular action, its muscles should be in a state of repose; and, therefore, the seats should have an easy backward slope, the most favourable to rest. Nothing exhausts muscular vigour more quickly than a state of continued muscular tension, such as is exerted in standing still for a considerable time. The same remark is applicable to the sitting upright without support. The inclined plane, now so much in vogue in Europe, acts on the principles here laid down.

4thly. The feather bed and high pillow should be supplanted by a mattress and very small pillow, without bolster; and the children should be taught to sleep in various positions.

5thly. In *cities*, at least, the first symptoms of indigestion in growing girls, should be carefully removed; and that too by such means as are calculated to give tone and vigour to the whole frame. The cure should be attempted, as far as practicable, without resort to the use of drugs. Among the best means for that purpose, are the cold shower bath, riding, if convenient, and a total suspension of the exhausting mental exercises of the school. If such measures should prove unsuccessful, let there be applied such a *medical* treatment as the case may itself suggest. As a defect in tone, or strength of digestive action, is apparent, we might be led, by the evil influence of a name, to the use of *tonics*, as the systematic writers on materia medica have absurdly denominated an incongruous assemblage of salts and bitters, of acids and alkalies. Such medicines often augment the appetite, even to a degree of voracity, without producing a corresponding force of digestion; while, in the cases to which reference is now made, there is more frequently atony of the bowels, than debility of the stomach; more commonly defective hepatic, than feeble gastric action. In conformity with such views, the best *tonics* are medicines of the class *cathartics*, among which rhubarb or jalap, with sup. tart. potas. has been found most useful. To do much good, such medicines must, when resorted to, be applied to the case *perseveringly*. A considerable experience with cathartics has convinced me, that, when irregularly taken, they increase the torpor of the intestinal canal; but when regularly employed, for a *considerable length of time*, they most frequently leave the bowels in a healthful and active condition, and with power to sustain themselves in the improved state. This conclusion is the result of facts and experience; but contrary to that which is *taught*, relative to the use of cathartics. It is true, that for some time there is a call for the gradual increase of dose; but, beyond a certain period, there arises a necessity for its gradual diminution, until at length it is known that there is no longer need of any artificial aid. Why should it be otherwise? The medicines used do not impair the tone of the stomach, and they remove the burdensome load of feculence which rests in the bowels. Very soon, in almost every case, renovation of health is perceptible in the countenance, the tongue and skin, clearly indicating that the system, if it suffer at all from such medicines, suffers less than from the evils which they remove. After a time, the intestines become habituated to regular evacuations, and unaccustomed to the presence of a load of feculence. Their tone is braced by the return of general vigour; and, while they and the liver are taught to act again in concert, care is taken to remove, by the gentlest measures, that which would oppress them. At length, by increase of irritability, by consentaneous hepatic action, by the promotion of constitutional energy, by the power of a regular habit, the digestion returns to its wonted healthfulness, and the very seeds of the distemper disappear. The *fæces* themselves become sufficiently stimulating, and tend, as in health, to promote their own evacuation.

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* The girl must stand in such a swing, and keep it in motion by her own efforts.

Unfortunately for the poor girls in whom such symptoms appear, little attention is paid to them. The ease with which older females bear habitual costiveness, and the frequency of this complaint among *them*, render mothers and teachers insensible to the long train of ills, which may ensue from them in growing girls. They are, therefore, either entirely neglected, or subjected to the action of medicines of a domestic character, which tend to weaken the tone of the stomach, and to increase the torpor of the bowels. At the period of life of which we are treating, the mother or teacher ascribes every disease to a single cause; and endeavours, by hot and stimulating articles, to produce a result which is scarcely ever accelerated by such means; and which is too often prevented from appearing, by injudicious and untimely applications. Meanwhile the disease is gaining ground; and, after a time, the inclination of the head to the left side, and a slight but awkward elevation of one shoulder, are charged on the child as a piece of affectation, and she is tormented with chidings and posture-lessons. No suspicion is excited as to the true cause of such deformity; which arises, however, in every case, from a slight lateral incurvation of the spine. It is to counterbalance the right lateral bend of the backbone at the shoulder blades, that the head is thrown to the opposite side; but very soon a more unseemly counterbalance is discovered in the left lateral curve of the lower part of the spine, by which the left hip is made protuberant. When this is effected, the head is carried with a better grace, and hopes are entertained of a speedy rectification of what is supposed to be a mere voluntary error of carriage. But while the girl is subjected to all the evils of a modern fashionable education, she can *never* recover. The deformity *will increase*, and such a disease be instituted as is truly lamentable, and almost hopeless.

The lateral incurvation, which appears at the approach to puberty, is not, so far as I have observed, complicated with any tendency to a carious state of the spine; for not one case of this kind has been followed by antero-posterior deformity—a deformity uniformly produced by a wasting of the vertebræ. But, on the other hand, serpentine curvature *in very early life*, is almost always followed by the angular projection which is usually ascribed to caries; and in such cases, the latter form of spinal disease ends the life of the patient. I have at present under my care, several cases of lateral incurvity, which have been, in their progress, complicated with angular projection of the spine, in all of which the patients are yet under eight years of age. I am also in attendance on several cases of lateral curvature, in which there seems to be no tendency to any other disease of the spine. These are all females, and more than thirteen years old. There is, then, a marked difference in the degree of danger of lateral curvature of the spine, as it presents itself in children, and in those who are approaching the period of puberty. In one class, it is a disease arising out of constitutional tendencies, and is ordinarily accompanied by a scrofulous temperament; and is not only destructive to the beauty of the form, but also painful and perilous. In the other class, it is the effect of the usual accidents of posture, and the debility superinduced by bad diet, indolence, and an insalubrious atmosphere, by excessive mental exertion, and the total privation of healthful regular exercise. Besides, it is seldom painful, and hardly ever attended with danger. It is not improbable that, in the latter class of cases, some may be found, in which the one disease produces the other, but this has not occurred under my observation.

Whether lateral incurvity appear in a child, or in one who has passed the age of childhood, it is highly important to apply remedial measures promptly and patiently. If we fail to arrest the disease in the child, we may look for the supervention of a much more formidable malady; and if we neglect it in the adult, we shall finally encounter a fixed and incurable deformity, destructive alike to the beauty of the form, and the moral comfort of our patient. It is not possible to form a system of prophylactic measures against the disease in the younger class, as its causes are not yet ascertained. For the other class, the preventives have been already laid down. When the *lateral* curve becomes perceptible, and announces the existence of disease of the spine and its braces, it is highly important to meet the case promptly. As there has arisen an inability to support the erect posture, and as the course of invigoration necessarily demands time, we must, to avoid the effect of habitual flexure, either lend extrinsic support, or lay the patient in a recumbent posture. There lie objections to both measures. Artificial support disposes the muscles to rely on it; and even the ligaments, when disused, lose their tone and tension. A great and continued prop of any kind, tends, therefore, to increase that condition of the spine, on which the deformity is dependent, and is so far objectionable. It would, if alone relied on, be productive of very injurious consequences, and tend rather to augment the disease than promote a cure. But if applied only as a temporary support, while all promising measures for enforcing tone and enhancing vigour are employed, and if laid aside gradually, as the spinal column acquires self-supporting power,—mechanical contrivances form an invaluable auxiliary in the management of such cases, whatever may be their causes, and at whatever age they may occur. If detected *in its very origin*, lateral curvature demands no such aid; for the patient has yet the power of erecting herself by volition; and the instantaneous removal of existing causes, and the application of corroborating remedies, will suffice for the cure. When volition is incompetent to erect the spine, the danger of habitual incurvation becomes at once apparent, and must be guarded against by such a suspensory power, as will correct the inclination. It is equally necessary to use mechanical measures to overcome the *twisting* of the spine, by which one shoulder is advanced before the other. As well might we, when a sapling is bent, attempt, by digging at its roots and watering it, to make it stand erect, as to remove a decided deformity of the spine, by invigorating its muscles and ligaments. If soon reinforced, these braces may *suspend the progress* of the inclination; but, as invigoration is slowly accomplished, and the very curve is a cause of weakness, we must resort to external mechanical correctives, to keep the spine straight, until its own braces are adequate to its vertical support. For such a purpose, the instruments are almost numberless. Those which I prefer, are delineated in Mr. Shaw's excellent work, and in my paper in the first number of this Journal.

To the treatment by continued recumbency, the objections are much more weighty. Increased tone and vigour can scarcely be expected from a course of management, of which exercise forms no part; and we have the high authority of Mr. Shaw for the assertion, that confinement in a recumbent posture, while it denies all hope of general invigoration, softens the intervertebral substance, and produces a degeneracy of the structure and functions of the spine. It does more: it often places the patient in a posture as crooked as possible. It is so difficult to keep a patient straight in bed, that the highest authority suggests the application of steel-lined corsets at *bed-time.* As there is seldom, in such cases, much pain or sensible irritation, it is difficult to perceive the advantages promised by recumbency. It does not, even temporarily, correct the incurvation. It has no tendency to augment tone and vigour. It impairs digestion, enfeebles the muscles, relaxes the ligaments, and produces degeneration of the spine. In the few cases of lateral curvature, where exercise causes pain, its occasional application may be necessary; but I have seen no case in which it could not be dispensed with. When I say dispensed with, I mean as a leading measure in the process of cure; for patients, affected with lateral incurvation of the spine, should repose on an inclined plane, as advised by Mr. Shaw, during the greater portion of the time which is not spent in exercise. Exercise should be taken regularly, and for an adequate period of every day; but the patient should be always properly sustained by mechanical aid, while in an upright posture. In very young subjects, the spine-cart, spine-chair, &c. may be employed with advantage during the whole period of exertion; but in others, corsets, lined with slender steel, or whalebone plates, may frequently suffice to support the spine during a part of each day; taking care, however, not to bind down too tightly the muscles which are to be invigorated by exercise.

To prevent the patient from assuming a crooked posture in bed, it has been recommended to apply the steel-lined corsets during the hours of repose. This practice may, at first view, appear inconsistent with the objections often urged against the use of corsets; but if at all admissible in the treatment of this disease, corsets are most usefully applied, when the patient is in bed. When in an erect posture, the support of the corset is hurtful; because the muscles which usually brace the spine are not called into exercise, and the patient leans upon the extraneous support. But in bed, all the spinal braces are relaxed, and the corsets merely prevent the assumption of a crooked attitude. They may be thrown aside in the morning; or if essential to the maintenance of a proper erectness, may be worn for such part of the day, as is not spent in the spine-cart, or some instrument of that class.

Having devised the means of immediately reducing the curvature, it next becomes the duty of the physician to obviate the causes, and to remove the effects of the disease of the spine.

The remote or predisposing cause, is often, in young subjects, what is usually termed, a scrofulous temperament. A fair and fine skin, light hair and eyes, large lymphatic glands, soft, yet large limbs, a tongue partially divested of its *epithelion*, a tumid abdomen, &c., characterize the children most liable to the disease. They are sanguine, irritable, and timid; and, therefore, predisposed to cephalic diseases, and frequently die of hydrocephalus. When lateral curvature of the spine affects them, it makes its onset very early in life; often in the second year, and seldom after the fourth. It also usually attacks male subjects, though there are many female cases. Looking at the state of the system in such cases, the *general* treatment cannot be easily missed. The want of tone and vigour is every where visible. The digestion is feeble and irregular; the muscles are soft and flabby; the lymphatic system predominates, and the nerves are particularly excitable. The constitution is defective in vigour, and calls for a course of bracing remedies. Good air; cold bathing, especially in salt water, or salted lime-water; a regulated nutritious diet; regular purging; frictions and champfooing, and moderate, but frequent exercise,—constitute the chief part of the general management of such cases. It seems scarcely necessary to suggest the propriety of securing the child against great mental inquietude, and severe moral exercise of every kind.

But general treatment will not alone suffice for a cure in all cases; remedies must be applied to the local disease. To use them with advantage, we should have clear views of the condition of the spinal column; but unfortunately there yet exists but little settled knowledge on this subject. There are nearly as many hypotheses as there are writers. One ascribes the curve to the irregular action of enfeebled muscles; another to relaxation of the spinal ligaments; a third, to a change of character in the intervertebral cartilages; a fourth, to mere errors in posture combined with general atony; and a fifth, to a disordered state of the *medulla spinalis.* There are also those who attribute the incurvation to irregular deposition and absorption of osseous matter in the bodies of the vertebræ, by which these bones are so changed in form, as to cause the lateral bending and even twisting of the spine. As each has demonstrated by cases the truth of his theory, we are inclined to believe that each is right in all that he affirms, and wrong in all that he denies. In fact, in most *juvenile* cases of curved spine of some standing, the muscles are atonic, the ligaments relaxed, the intervertebral cartilages softened, and, in protracted affections, even the form of the vertebræ is altered. In such cases, little influence is exerted by errors of posture; as very young children are not subjected to much restraint either at the school-desk, or by means of corsets. It is probable, that, partaking of the general debility, and of the redundant liquidity of the system, the muscles and ligaments of the spine feel the earliest influence of the local disease. For the same reason, the intervertebral cartilages cannot be very long exempted from participation in the morbid action of the part. Finally, the pressure and tension on the vertebræ cause a gradual change, and they are found at length to assume a cuneiform shape. Chiefly to prevent the latter organic change, and to arrest the elongation of soft and stretched ligaments, would I insist on the early and patient application of supporters to the spine. While they are applied, the spine and appendages must be strengthened by frictions, champfooing, and those motions which call into play the muscles of the trunk. Occasionally dry cupping will promote action, and assist in the recovery of tone; and when the irritation near the spine amounts to pain, scarifications are beneficial. When the pain occurs as a consequence of fatigue, Dr. Jarrold's application, a sponge soaked in warm water, is very soothing and agreeable. Although I have not tried electricity, I am led to suppose that it would be useful, as it often promotes vigour, and relieves irritation in other cases.

Unfortunately we do not often see a case of lateral curvature in a young child, until the disease is inveterate, and the patient threatened with paralysis of the lower extremities. Then, when the spinal marrow is involved, and changes in structure have taken place in the column itself, we are summoned to give late and almost hopeless attendance. Nay, we are not always applied to before the morbid spine has become carious, and antero-posterior incurvation, with its deformity and agony, is added to the accumulation of malady. When caries takes place, and it often supervenes in very young subjects on lateral incurvity, we are required to give consideration to the long established treatment by issue and seton, and the more recent one by blisters, pustulation, and moxa. That by such means, irritation and inflammation may be reduced and even removed, cannot be questioned; and that some cases of caries of the vertebræ have been thus cured, is a truth supported by high authority. But the long and tedious confinement which accompanies such treatment, and the severe pain and great trouble by which it is attended, deter from its frequent and patient application. It not unfrequently causes hectic fever, and its train of evils; and it tends, by confinement and inaction, to augment the disease of the intervertebral cartilages, and the softness of the ligaments. It promises, at least, only to arrest the progress of caries, but does not pretend to lessen the existing deformity. Besides, to succeed at all, it must be persisted in for years, and in some cases almost for a lifetime. If then a cure can be effected by milder means, and in less time, they must be preferred. But when milder measures promise melioration of figure, as well as the arrest of the disease, we can scarcely hesitate to give them a trial. In a conversation with Dr. Physick, held this very day, he informed me, that he considered rest, recumbency, and long continued regular purging, as the means most to be relied on, in the treatment of carious vertebræ. Several cases of this formidable disease were thus cured by him, at an early period of his professional career; and more recently, he has been successful in the application of the same means. Viewing, as he does, caries of the vertebræ, and hip disease, as dependent on the same causes, he was led to the adoption of a common treatment for both; and he has not been disappointed in the result. In those cases, which are not meliorated under such treatment, especially after a patient trial, this great surgeon lends his sanction to the application of issues, and other local remedies of the same kind. That such treatment will cure the disease, cannot be doubted; because we know some of the individuals who have been thus relieved, and the authority is unquestionable. That a rigid adherence to a recumbent posture, with total privation of exercise, did no injury to the spine and joints, the occurrence of which is so strongly insisted on by Mr. Shaw, may be ascribed, in part at least, to the regular use of cathartics. As, however, such a confinement is exceedingly irksome to children, and must, in some degree, impair the general vigour, it is important to ascertain whether as speedy and certain a cure is not compatible with less restraint. Some of the following cases will prove, that such restraint is not always necessary, and that, in many carious affections of the spine, exercise, with all its advantages, may be enjoyed without lessening the probability of restoration to health. It will also be perceived, that relief from pain is often greater during the use of the spine-cart, than during recumbency and total inaction. Finally, as in many of the cases, lateral curvature is complicated with caries, the suspensory treatment assumes greater importance and promises better results.

Cases of lateral incurvity in girls approaching the age of puberty.—For reasons obvious to delicate minds, the initials of the names of the girls, and a minute history of the cases, cannot be given. Six of the cases have been subjected more or less completely to the treatment recommended. They were all cases of some duration, presenting a degree of disfiguration, insusceptible of farther concealment. In all, there was an ungraceful advancement and elevation of one shoulder, and an unnatural projection of one scapula, while a very conspicuous deviation from its usual appearance was perceptible in one collar bone. In all these cases, the treatment suggested in a former part of this essay was applied; and in all, save one, there has resulted a considerable improvement of the figure. One case has defeated all such measures, and, after a laborious application of the best means of cure, remains yet unchanged. In none of these cases has the figure been restored to its natural state; though in some, the remaining deformity is readily concealed by the clothes.

Cases of curvature in young children.—In most of the cases of this class, there existed both kinds of incurvation; the order of accession being such as to give precedency to the lateral.

Among those whose cases of this class were described in a previous paper, already referred to, A. S. continues well, and possesses still an erect and handsome figure, and has not used his spine-cart for many months. E. C. who was thought to be nearly cured, has experienced some increase of the antero-posterior curve; and the disease is, perhaps, yet making a very slow but certain progress. J. H. recovered so far as to be able to attend at school, and to engage in the gambols of his little play-fellows. His caries appeared to have ceased its action: but during the last month he was affected with pain in the head; and after a few days' illness, died apparently of *hydrocephalus internus*. In his last illness he never complained of his back. No opportunity of making a *post mortem* examination was afforded. The other cases, the histories of which were given in that paper, remain yet in health.

Case 1st. Earle Carson, four years of age, was shown to me on the 29th of October, 1826. He was then confined to a recumbent posture, in consequence of the loss of the use of his lower limbs. As the legs were often rigid, he was frequently deprived of the power of sitting erect—a posture rendered painful to him in consequence of a disease of the spine, by which an angular projection was caused near the upper section of the dorsal vertebræ.

As in the case of A. S. the occiput rested on the back, so as to render it difficult to pass the finger between them. The usual irregularity was presented by the ribs and sternum. Disturbed often during the night, by severe pain in the back, and under the epigastric region, the little patient was denied the relief usually obtained by change of posture; for he suffered more keenly by being moved. His external appearance was that which indicates the lymphatic temperament, and he presented all the ordinary symptoms of diseases of this class. His skin was rough, though fine, his bowels were costive, his breath was fetid, his mind active and sensitive, and he had a frequent, irregular, forceless pulse. Sometimes he experienced hectic paroxysms. The treatment was founded on the indications. The curvature was lessened by mechanical means adapted to his helpless state; cathartics regularly given, restored the vigour of intestinal action; and the bath of lime-water and salt was corrective of the diseased state of the cutaneous organ. Under such treatment, he passed from a condition of extreme attenuation, to one of ruddy plumpness. His appetite and digestion became excellent; his pain annoyed him no more; he bore even rough handling well; and while his *neck* displayed no longer an unnatural curve, his legs, becoming gradually obedient to volition, served, though yet imperfectly, to impel his spine-cart. He, in fine, appeared to be in good health.

As a proof of the advantage of suspension, I ought to mention, that when the child was in a state of progressive improvement, his grandfather lowered the head piece, so as to relax the chin-band; in consequence of which the legs were again in a few days paralyzed. By increasing the degree of suspension, the limbs were soon restored to use.

About six months after the commencement of the medical management of this case, the child began to complain of severe pain *in the head*, and in a few days died. A *post mortem* examination showed the marks of inflammation and effusion in the brain. The spine was found carious at the angular projection, and the bodies of three dorsal vertebræ were gone. A light yellow consistent caseous matter occupied their place. The interosseous cartilages were softened, and here and there exhibited reddish spots, as if inflammation had existed on their surface.

Case 2nd, presented a condition of spine, which appeared to me so hopeless, as to induce me to advise against any treatment. The daughter of a respectable tobacconist, Mr. A. in Second street, was, by a long course of disease of the spine, greatly deformed. Indeed, the hump on the back was nearly as great as is seen in any case, and the gastric pain was so severe as to destroy the comfort of the patient. At the earnest and repeated solicitation of the parents, I was induced to use appropriate measures, and to my own surprise, found the general health susceptible of complete restoration, and the deformity capable of marked improvement.

Case 3rd, was brought to me from New York. A child of wealthy and affectionate parents, this little girl had been placed under the care of the most eminent physicians, and subjected to the full influence of the most approved practice; but the deformity continued to increase, until the figure was entirely destroyed, and the general health undermined. Frequently, she was confined because of the weakness of her limbs. The symptoms were very similar to those of the preceding cases, and the treatment was, of course, nearly the same. Contrary to expectation, improvement was manifest, from the time of the use of the spine-cart, the bath, and cathartics. Her general health has become excellent, and she is so much improved in figure, as to lead her father to express, in his last letter, a confident hope of the attainment of a perfect cure.

To detail all the cases of this kind, would be tedious and useless. It may be said in general, that in no one case, where the child would submit, and the parents were resolute and patient, has the disease destroyed the patient. The greater number have been under progressive improvement, some remain stationary, and in a few, the disease, though retarded, is advancing in its course.

Among the carious cases advantageously subjected to the proposed treatment are, that of a son of Dr. T. of N——n, a child of Mr. M., Second street near Race, and several others. The following case was communicated to me by Dr. Harrington.

Curvature of the Spine.—History of a Case, by W. H. Harrington, M. D.

On the 1st of May, 1826, I was requested to attend F. R., a boy 6 years old, who was affected with a lateral or serpentine curvature of the spine.

Over the upper vertebra of the loins, there was a painful tumefaction of the muscles, under which could be felt a considerable angular prominence of the bone.

The sternum, and anterior part of the ribs, projected forwards.

The child experienced great fatigue from little exercise; was frequently roused from sleep by painful twitchings of the lower extremities; and during the day, sought relief from pain and exhaustion, in the lap of his nurse, or over the seat of a chair.

His tongue was thickly coated with a moist yellowish fur. His pulse was quick; his skin covered with a scaly eruption; his abdomen very hard and protuberant; his appetite depraved, and his bowels were costive. He often complained of pain in the breast, difficult respiration, and palpitations. He stumbled when he attempted to walk alone, and drew his legs up and crossed them, when in a sitting posture. I thought the practice recommended by Dr. J. K. MITCHELL suited to this case, and accordingly directed the daily exhibition of a cathartic, composed of one part of jalap, and two parts of cream of tartar; a shower bath of lime-water, in which a small portion of common table salt was dissolved, and a nutritious diet.

At the end of two weeks, the tone of his system was evidently improved; his strength increased, and his appetite was restored to its natural condition. At this period, the spine-cart was obtained, in which the patient was placed four times a day, and directed to remain there, an hour at each time. At every visit, and the visits were made with considerable intervals, I elevated the rod a little. In a few weeks, I observed that he carried his head more erect, and walked with less difficulty, and apparently with more confidence. The curve became less and less apparent; the tenderness and swelling in the neighbourhood of the loins gradually diminished; and all the other unfavourable symptoms presented a milder character, until the beginning of September, when, in consequence of the cure appearing complete, I discontinued my visits.

December 20th, 1826.—On this day, I visited my patient, and found him perfectly recovered, and able to attend to his juvenile sports, with his wonted vigour and strength; and one of the swiftest pedestrians of his age in the neighbourhood.

February 8th, 1827.

In concluding, I should be wanting in a sense of public duty, did I not confess, that in the application of the remedies insisted on in this essay, I have met with many difficulties, not anticipated when I wrote my first paper.

The confinement to the spine-cart has been found much more irksome, than, from its effects in the earliest cases, I had reason to expect.

I have been obliged, in many cases, to substitute rhubarb, and other cathartics, for the usual purgative; and I have found great difficulty in sustaining the patience and resolution of the parents during a confining and irksome treatment, necessarily of long continuance. But the most formidable objection is afforded by the suspicion, that the cure of a scrofulous natural issue of the spine, to which the system has been long accustomed, creates an increased disposition to disease of the brain, and will demand the use of artificial issues, when we are on the eve of a cure. Those, however, who have encountered in practice many instances of this formidable malady, will admit, that the success attending the treatment which is founded on the symptoms, is, if not always successful, at least more salutary than any other.

Article VII.—*A Case of Dislocation at the Sacro-Iliac Symphysis.*

By Thomas Harris, M. D. Surgeon of the U. S. Naval Hospital at Philadelphia.

Mrs. ———, the subject of this case, is thirty-five years of age, of a slender and delicate form, and the mother of a child, which at the time of the accident was two years old. On the 27th of January, 1827, she received a violent blow on her sacrum, inflicted by her husband with his clinched fist. She immediately fell, and was unable to rise. Severe pain was felt about the right sacro-iliac junction, accompanied with nausea and faintness.

Dr. Gibson, professor of surgery in the University of Pennsylvania, was consulted a few hours after the occurrence of the accident. Upon examination he found a considerable hollow over the upper part of the sacrum, produced by the unnatural backward projection of the posterior superior spinous process of the ilium. When the patient moved her right leg, an aggravation of the pain was experienced, accompanied by a distinct crepitation. The slightest motion conveyed an impression to her, as if, to use her own language, her "hip bones were separating." These symptoms satisfied Dr. Gibson that a dislocation, or *disastasis* of the sacro-iliac symphysis had taken place. The patient was bled, and directed to take an anodyne draught, and a soap plaster was applied over the injury.

Jan. 28th. Passed a restless night—pain continues acute, and a burning sensation is felt in the site of the dislocation. Her bladder and intestines continue to perform their natural functions; thus affording satisfactory evidence, that no material mischief has been done to the spinal marrow.

In consequence of professor GIBSON's numerous engagements, he was unable to continue his visits to the patient, particularly as she lived at an inconvenient distance. He, therefore, very kindly placed the case under my charge.

Feb. 1st. In addition to the symptoms already detailed, I find, upon lifting up the soap plaster, a considerable ecchymosis over the injured articulation.

Feb. 3rd. Complains of creeping rigors, which extend from the lower part of the sacrum to the middle of the dorsal vertebræ. The slightest motion produces a recurrence of the chills, and an aggravation of the pain. While, however, the patient continues to lie on her left side in a state of perfect quietude, her sufferings are much less severe than they were during the first four days: any other position occasions great pain. No material alteration in the symptoms was observed until

Feb. 10th. Experiences acute lancinating pain about the right sacro-iliac junction, accompanied with some fever and restlessness. The partial rigors are less frequent. A dose of oleum ricini was prescribed, which operated freely, and procured relief from the pain and fever.

Feb. 12th. No fever, and while perfectly quiet, exempt from pain. Applied a roller around the pelvis, which affords her, as she states, comfortable sensations.

Feb. 14th. Patient complains that the bandage around the pelvis excites uneasiness. It was in consequence removed, and a fresh soap plaster applied.

Feb. 16th. Severe pain is felt in the right knee, similar to that which arises sympathetically from diseased hip joint. The chilly sensation in the course of the spine, has not been felt since yesterday morning.

Feb. 20th. Pain continues in the knee, but in other respects more comfortable. Accidentally moved her right leg this morning, but without producing crepitation, or much pain.

Feb. 25th. No pain is felt in the knee, and the patient says she feels in every respect much relieved. Applied a padded and quilted girdle around the pelvis, which was secured by a lacing cord. She is now allowed to indulge in her ordinary diet.

March 8*th.* An attempt was made to-day to raise the patient in bed; but, as it produced an aching sensation in the injured part, she was immediately replaced in her former position.

March 14*th.* Perfectly free from pain. Another attempt was made to raise the shoulders in bed, which produced less inconvenience. Remained in this situation twenty minutes, when she complained of fatigue.

March 16*th.* Was again raised in bed, and continued in this situation for half an hour without suffering much uneasiness. From this date, she was raised every day to a semi-recumbent position, and so continued during the space of an hour, until

March 30*th.* Was lifted to-day from bed, but, in consequence in part at least of the debility of her muscles, was unable to stand. Directed that she should be placed every day in a cushioned arm chair.

April 10*th.* With a little assistance, stood to-day for three or four minutes.

April 15*th.* Aided by a cane, she walked from the chair to the bed.

April 20*th.* Walked across the room without any assistance, but with some difficulty.

April 27*th.* Walking considerably improved. The patient now feels but little inconvenience from the injury.

May 4*th.* Walked down and up stairs. The posterior projection of the ilium, and the corresponding depression of the sacrum, are still very apparent. The latter bone appears to have been forced inwards about half an inch. The great breadth of this articulation, or synchondrosis, will allow of a displacement to this extent; and still there will remain opposed to each other, surfaces of sufficient width to sustain, when properly united, the weight of the body.

Considering the firmness of the union between the sacrum and ilium, supported as it is by powerful ligaments, it would seem almost impossible, that a blow with the fist could separate them. It may be well to state, however, that the individual who inflicted the injury, possessed great muscular strength, that the patient was delicately formed, and that, in this particular case, there may have been an unnatural weakness of the articulation. Whether this local weakness had always existed, or whether it had been superinduced during some particular derangement of the system, is altogether a matter of conjecture.

That relaxation, and even partial separation of the pelvic articulations do sometimes take place during pregnancy, is fully established by the testimony of **Ambrose Pare**, **Petit**, **L'Heretier**, **Boyer**, and others. Their opinions upon this point are not the result of speculations, but founded upon satisfactory post mortem examinations. In some instances, these bones were re-united, and in others, they continued separated, and the unfortunate patient was, in consequence, bed-ridden for life.

If the reports of these distinguished surgeons be correct, it will not be unreasonable to suppose, that our patient may have experienced during her last, and only pregnancy, this partial relaxation of the sacro-iliac symphysis, which may have been increased by the severe and protracted accouchement. which she reports herself to have then experienced. Though a considerable time had elapsed from the period of her delivery to the occurrence of the accident, still it may not have been sufficient to restore the synchondrosis to its original strength. It is only by admitting this supposition, that we can account for the production of an injury, by means apparently so inadequate.

This is so rare an accident, that some surgeons have doubted the possibility of its occurrence under any circumstances, unless in connexion with fracture of the pelvis, or concussion of the spinal marrow. The degree of external violence required to produce such an effect, does at the same time so much injury to the spinal chord, and pelvic viscera, as to render the dislocation the most simple part of the case. When the accident is thus complicated, it always sooner or later terminates fatally. Cases of this character are recorded by **Boyer**, **Astley Cooper**, and others.

The only case of *simple* dislocation of the sacro-iliac synchondrosis which I have been able to find, besides the one now recorded, was reported by **Eneaux**, **Hoin**, and professor **Chaussier**, and published in the *Recueil des Memoires de l'Academie des Sciences de Dijon*. As I have not at present access to this work, I will subjoin the following extract from their report, which may be found in the 4th Vol. of Boyer's Surgery.

" The left os innominatum was dislocated and displaced upwards.

The inflammatory condition of the part forbade all attempts at reduction. After using for several days relaxing applications, and an antiphlogistic regimen, an attempt was made to replace the bones, which was opposed by a recurrence of the pain, and followed by a return of the inflammatory symptoms. After some days, we renewed the attempt at reduction, but with the same result, when it was determined to renounce all further efforts. After a prolonged rest, but shorter than could have been desired, the patient left his bed; and having commenced walking with the assistance of crutches, the weight of the limb corresponding with the injured side, drew the displaced ilium downwards, and thus gradually effected a reduction. The patient ultimately recovered, and was enabled to resume his employment as a bricklayer."

It is not stated, either in what manner the accident occurred, or what length of time was required to accomplish the restoration.

ARTICLE VIII.—*Case of Twins, carried to the full period, in which one Fœtus perished at the end probably of the fifth month of Utero-gestation.* Communicated, in a letter to the Editors, by O. H. TAYLOR, M. D.

THE following case of twins, interesting principally from its singularity, may, perhaps, be perused with satisfaction, by some of the readers of your valuable Journal.

On the 10th of March last, I was requested to attend Mrs. B., a woman of small stature, aged twenty-three years, in labour with her first child. She had been suffering with slight and irregular pains for two or three days anterior to my visit. At the time I saw her, the pains had somewhat increased; but they still recurred at irregular intervals, and made very little impression upon the os uteri. She expressed great anxiety at not having felt the motion of the child for ten days or two weeks. Under these circumstances, I took my leave, after having assured her, that I would see her again in a short time. Four hours and a half elapsed before I paid my next visit, when I learnt that the membranes had been ruptured but a few minutes before. Upon examination, the arm, somewhat swollen, was discovered to protrude without the os externum. In order to promote the dilatation of the os uteri, which was very rigid, I ventured to bleed the patient ad deliquium animi. This having the desired effect, I deemed it expedient immediately to turn the child, and deliver by the feet. On passing my hand into the uterus to search for the feet, it came in contact with a substance, the nature of which I was unable to determine. I, however, found no difficulty in moving it to one side, and delivering by the feet. Judging from its size, the child could not have weighed less than nine or ten pounds. It was still-born, and, from the abrasion of the cuticle and other signs of putrescence, appeared to have been dead for several days. Having separated the child from the mother, I next proceeded to ascertain the nature of the substance, which had opposed me whilst engaged in the operation of turning. Accordingly, I introduced my hand again into the uterus, and extracted, without difficulty, the body in question, which proved to be another fœtus of much smaller size. From the appearances presented by this fœtus, I was led to suppose, that it had been forcibly compressed between the sides of the uterus and the full grown fœtus. The head, chest, and abdomen were perfectly flat, and their cavities, as it were, entirely obliterated. Its size indicated it to be a fœtus at the end of the fifth month of utero-gestation. It showed none of the ordinary signs of putrefaction, though the cuticle could every where be readily separated from the surface of the body. It was furnished with a very small umbilical cord, which was accidentally broken. In the delivery of the after-birth, very considerable difficulty was experienced, on account of an hour-glass contraction of the uterus; in consequence of which, Dr. EBERLE was called in for his advice and assistance.

The size of the smaller fœtus, as accurately measured, is as follows: The distance from the chin to the vertex, in its flattened and compressed state, is one inch and four-tenths. The breadth across the shoulders, from the acromion process of one side, to that of the other, one inch and three-tenths. From the top of the shoulder to the joint of the wrist, one inch and six-tenths. The length of the leg, from the trochanter to the heel, one inch and six-tenths. The whole length of the fœtus, five inches and seven-tenths. Its weight, as taken out of the alcohol, 280 grains.

This singular example of the retention, within the uterus, of a fœtus, which must have perished at the end of the fifth month of the pregnancy, is certainly interesting to the physiologist and accoucheur. We know not what became of its membranes or placenta, and have no account of the occurrence of hæmorrhage during the term of utero-gestation.—*Ed.*

ARTICLE IX.—*Case of Epilepsy, attended with peculiar circumstances, in which the Ligature of the Carotid Artery was resorted to with partial success.* Communicated, in a letter to the Editors, by FREDERICK E. BECTON, M. D. of Rutherford County, Tennessee.

JOHN HOOBRY, a Dutchman, twenty-two years old, of stout athletic frame, large head, and short neck, applied to me in February last, to be relieved of epilepsy. He had been subject to it for more than nine years; the attacks of the disease only occurring during sleep. He had taken all the usual remedies; such as foxglove, zinc, nitrate of silver, turpentine, &c. &c., not omitting copious draughts of the famous misletoe tea; but none of them, either separately or combined, ever afforded him one night's respite from his fits.

On the 15th of March, I saw him for the first time; and when I heard the history of his case, I became satisfied that medicine could afford him no relief. I suggested to Mr. Hoobry and his friends, the possibility of his being cured by a surgical operation. He had not received any injury on the head, and, therefore, trepanning was not thought of. I proposed tying the carotid artery, believing that his fits were produced by a collection of blood in the encephalon, too great for the return vessels to conduct to the heart. I was confirmed in this view of the case, from the fact of his not being liable to them, except when sleeping, and consequently in a horizontal posture; which position favoured the propelling arteries, but lessened the returning power of the veins. I also reflected, that he had been treated by the ordinary methods for nine years, without receiving any benefit; and, that every night, during that interval, he had suffered from a paroxysm of the disease. Under these circumstances, I did not hesitate to propose the operation above referred to, supposing, that by means of it, the force of the blood to the head would be diminished, whilst the returning power of the veins would remain as before. I, accordingly, (my views being acceded to by the friends of the patient,) on the 21st of March, in presence of Mr. P. H. Mitchell, a pupil of mine, and Messrs. Yandell, Wasson, and Simmons, also medical students, tied the left carotid artery, below the bifurcation. It was done, as directed by Mr. C. Bell in his Operative Surgery. The only inconveniences experienced by the patient, were such as would a priori be expected: to wit, an unwillingness to speak, and a painful sensation on swallowing, both the result of soreness from the swelling which occurred.

The last time I visited him, was on the eighth day after the operation, he being about ten miles distant from my residence. At that time the wound was nearly healed; and from the day of the operation, until ten days and nights had elapsed, he had experienced but two fits. Being elated at the prospect of a cure, and yielding to the cravings, created by a natural fondness for spirituous liquors, he has since given himself up to intemperance, and has had frequent fits. In consequence of conduct so reprehensible, I gave him no further attention.

If this operation has ever been performed for the cure of epilepsy, before the present instance, it has not come to my knowledge. Whether, from the circumstances of the case already mentioned, I was justifiable in undertaking so bold and dangerous an operation, may be questioned by some; but I hold it as a maxim not to be neglected, that he who shrinks from what seems to be his duty, electing rather his reputation, than a prospect of relieving afflicted mankind, scarcely merits the honourable appellation of doctor of medicine.

Whether the degree of relief afforded the unfortunate man, until he forgot both himself and me, was such as to justify others in performing this operation for the disease in question, when occurring under the same circumstances, I will not pretend to decide; but if another case should present itself in my practice, exhibiting similar symptoms, and in an individual by whom admonition will be regarded, I shall certainly give it another trial.

EDITORIAL REMARKS.

With much pleasure we publish the above case from our respected correspondent, as indicative of his professional zeal, and as important in a pathological and practical point of view. The power, however, of the operation, in preventing the return of the epileptic convulsions, must have been greatly assisted, in the present instance, by the regimen to which the patient was submitted. Spirituous liquors, the apparent cause of his disease, were simultaneously interdicted, and when resumed, again excited the epileptic paroxysm. It cannot be denied, however, that tying the carotid had here a decided influence, as well from the circumstances narrated, as from the numerous facts, now collected, on the immediate consequences of obstructing the flow of blood in this vessel in many cephalic irritations. To the late Dr. CALEB HILLIER PARRY, we are indebted for many interesting and valuable facts of this character. He believed that hysteria, epilepsy, and various other reputed *nervous* diseases, whatever might be their essential characters, depended on the impetus or momentum of the blood in the cerebral vessels; and hence, that measures to diminish that impetus, were decidedly preferable to the whole course of antispasmodic, tonic, and stimulating remedies, then and now so freely recommended. In all these affections, Dr. PARRY resorted with success to *pressure on one or both carotid arteries.* In this way, he has, for the time, arrested the pulsatile pain, and the rush of blood often felt in the head, relieved severe pain, removed a sense of weight and fulness of the head, with flushing of the face, and moderated hæmorrhage from the nose; and, when sleep has been prevented by a hurry of spirits, and quick transition of thought, accompanied by an accelerated cerebral circulation, he has in himself "a hundred times removed these affections, and induced calm sleep by strongly compressing one carotid artery."* By the same means, he has removed various nervous complaints of the head, hysteric and *epileptic convulsions.*† The operation of tying the carotid artery for aneurisms of this vessel, or its branches, accompanied with pain or uneasy sensations, has often permanently relieved these symptoms, depending on increased vascular impetus.‡ These, and similar facts certainly prove, that cerebral irritations are often accompanied and kept up by increased vascular momentum, and that they may be sometimes relieved by mechanically lessening that impulse. But will any permanent benefit result from tying the carotid artery in epilepsy? Without wishing unduly to discourage such operations, the propriety of which repeated experiments can alone decide, we would maintain the negative, for the following reasons:—

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* Posthum. Med. Writings, vol. i. 324. London, 1825.

† Elements of Pathology and Therapeutics, 2nd edit. p. 251. Aphorism, DCCXXIX.

‡ Medico Chirurg. Trans. vol. i. two cases by A. Cooper: also vol. ii., a case of aneurism from anastomosis in the orbit of the eye, by Travers.

1st. That surgical experience has shown, that no permanent effect is produced on the circulation of blood in a limb, or even in the head, by tying the largest arteries supplying these parts.

2nd. That acknowledging with BICHAT, the independent, or at least the almost independent action of the capillary vessels, the velocity and quantity of blood through the unobstructed channels will be so increased, that there will be no diminution in the supply of this fluid—an opinion maintained by TRAVERS, and also by PARRY, although the *impetus* of the blood in some of the cerebral vessels may be lessened.

3rd. That from a careful examination of the symptoms, causes, and the post mortem appearances which often manifest little or no change of structure, after the disease has existed even for many years, and after attention to the effects of the several opposing plans of treatment, we are inclined to the opinion, that epilepsy is primarily and essentially dependent on an altered state of the nervous apparatus; and that vascular excitement, or impetus, is merely an *exciting* cause of the paroxysm, which may be, and often is, induced by any other irritating cause; and, consequently, that by removing the increased momentum of blood, if this could be permanently effected, we would but remove one of many sources of irritation.

To arrive, therefore, at a just pathology of epilepsy, we must investigate the normal or healthy condition of the cerebro-spinal apparatus, and then study the changes which may be induced in this system by the influence of different agents; for we hold, that no two agents, under similar circumstances, will produce precisely the same effects on the same tissue.

ANALYTICAL REVIEWS.

ARTICLE X.—*An Elementary System of Physiology.* By JOHN BOSTOCK, M. D. London, 1826, pp. 643, 8vo. Vol. 2nd.

Dr. BOSTOCK has been long so advantageously known by his various contributions to physiological science, that we have no occasion to conciliate the good will of our readers to this great achievement in that valuable department of knowledge. To read is to admire the skill, candour, and industry, which have been combined to produce a body of physiology, suited to the present enlightened period of the world; and containing, as well, a succinct and lucid detail of the physiological histories, and theories, of times long gone by, as a fair exposition of the opposite sentiments which are still held by different parties, and the stubborn facts which all parties equally concur in admitting to be demonstrated.

We have taken up the 2nd volume in this article, not only because we could not possibly comprise, in a short space, any useful view of the immense variety of details, scattered through more than 1000 pages, full of knowledge and wisdom; but also, because the first has been before our brethren since 1824, and has even been republished at Boston, so that it could be obtained by those who desired to have it.

The value of the present volume, is, in respect to the execution, at least equal to the former, and as far as depends on the numerous references, and notes, superior; for these are more full, and more numerous. With regard to the topics, we do not conceive that they can be so engaging as those of the former volume, in which the sentiments of the most distinguished medical philosophers, upon contractility, sensibility, and the circulation of the blood, are portrayed with masterly skill, and ability; these being, perhaps, the great foundations, on which all physiological superstructure must necessarily be raised.

The present volume commences with chapter VII, on Respiration, and proceeds to treat in chapter VIII, of Animal Temperature, IX, of Secretion, X, of Digestion, and XI, of Absorption, which closes the volume; soon, we are promised, to be succeeded by a third.

Inasmuch as the 7th chapter alone comprises 241 pages, much of it printed in a small type, our readers can only expect us to present them with a portion of it; and in order to facilitate the condensation, we shall frequently be compelled to take only portions of paragraphs, or sentences, and shall, therefore, not oblige ourselves to mark any but considerable and connected passages, as quotations; there being no occasion to fetter ourselves by this method, which would prevent us from paying that real respect to the author, which we feel must in all cases be best paid, by laying before the public the largest possible amount of his valuable work.

With the above explanations, we proceed to say, that the author commences with an account of the mechanism of respiration, and gives a description of the trachea, with its ramifications; the pulmonary system of blood vessels, and the diaphragm. The mechanical act of respiration consists essentially in flattening the arch of the diaphragm; for, the slight increase of capacity which the thorax could acquire by raising up the ribs, can be of very little importance in the act. He supposes, therefore, that the function of the intercostal muscles, which has been so much discussed, consists in fixing the ribs firmly, so that they may not be drawn downwards by the action of the diaphragm. We would beg leave to object to this explanation of Dr. Bostock, that the diaphragm, being inserted into the lower rim of the bony thorax, could have no tendency to draw the ribs downwards. Suppose the axis of the chest to pass through the centre of the diaphragm, it is evident that the direction of the contractile efforts is upwards, and would strike the axis, where it perforates the muscles, at various angles of from 25 to 40 degrees. We see not then how it could draw the ribs downwards, unless the concavity were reversed, or made to look upwards.

The lungs are every where in contact with the cavity containing them; whence it follows, that when the capacity of the thorax is increased by flattening the diaphragm, the air in the lungs must become rarified, and a portion of external air, sufficient to restore the equilibrium, will enter the trachea, and pass down into the vesicles. This constitutes the active portion of respiration; for that by which the air is afterwards expelled is merely passive, and dependent on elastic powers; except in extraordinary states, wherein the abdominal muscles concur to expel the respired air, by pushing the viscera upwards against the diaphragm, and as we think by pulling the ribs downwards.

The author examines very fully the question, what is the bulk of air taken in by an ordinary inspiration, and furnishes us with the statements and reasonings of Borelli, Jurin, Goodwyn, and Menzies, and fixes the average quantity, after Goodwyn, at about 40 cubic inches, though he notices the discrepant results obtained by Davy, (13½ cubic inches) and Messrs. Allen and Pepys, who found that 16½ were commonly taken in by the persons they employed in their experiments. But though 40 cubic inches be the measure of an ordinary inspiration, it is by no means the measure of the quantity of air contained in the thorax. Dr. Bostock found from experiments performed on himself and others, that 160, or 170 cubic inches of air can be expelled, after an ordinary expiration has already taken place; so that 200, or 210 cubic inches, may be considered as the difference between the states of ordinary inspiration, and of forced, or extraordinary expiration. No act of expiration, however powerful, can completely empty the lungs, and the probability is, that at least 120 cubic inches remain, after the most complete act of expiration, even the last, or that which takes place at death.

He sums up the whole of this subject, at p. 34, as follows. Assuming 170 cubic inches as the quantity which may be forcibly expelled, and that 120 will still be left, we have 290 as the measure of the quiescent lungs. Add to this 40, the amount of a natural inspiration, and we have 330 cubic inches of air, as the capacity of the lungs in their distended state. One-eighth may be changed by each respiratory act, or 4000 times their bulk may be expelled in 24 hours. The whole quantity of air respired in 24 hours, is about 666½ cubic feet, equal to 1,152,000 cubic inches.

The next subject is a curious one, which was proposed by Wm. Harvey for the consideration of his contemporaries. What is the cause of the first inspiration? A child born at the seventh month of utero-gestation will breathe as soon as it is born, but cannot live an hour afterwards without breathing. Why is it under the necessity of breathing always, after having once respired; since it might have continued to live, and grow, for two months, if the first act of respiration had not been performed? Notice is taken of the answers of Whytt, Haller, and Darwin; yet Dr. Bostock thinks it may be doubted, whether we are in possession of any data, which will enable us to explain the difficulty. He suggests, however, the state of compression exercised in the uterus on the surface of the child's body, and its position which prevents the descent of the diaphragm and the rise of the ribs; but when these circumstances are changed after birth, air rushes down the trachea, in consequence of the elastic dilatation of the thorax, after the removal of these obstacles: this explanation is evidently not satisfactory. He cites in a foot note, the opinions of Borelli, Lister, Swammerdam, Hartley, Blumenbach, and many others, equally insufficient to explain this point. The author regards also as undecided, the much argued question as to the cause of the alternations of respiration. Why, for example, is a portion of air, which has remained a given time in the lungs, capable of exciting the contraction of the diaphragm, in order that more may be added to the quantity, say the 290 cubic inches, already contained in them? He reserves for a future opportunity, the inquiry, how far the eighth pair of nerves, which is distributed over the lungs, imparts to them the power of feeling pain, which acts as a stimulus upon the diaphragm.

At p. 48, commences a series of remarks upon the mechanical effects of respiration; and first, on the circulation of the blood, which the readers of our journal well know has lately attracted the attention of Barry and others.

Hales's experiments are the first which deserve our attention; particularly on account of their resemblance to those of Barry. He inserted a tube into the crural artery of a horse, and observed that the blood was evidently raised to a greater height in the tube, when the animal made a deep inspiration; which circumstance he explained by supposing that the blood traversed the pulmonary organs more easily when they were thus distended, and supplied the heart more abundantly, than in other states.

Dr. Bostock remarks, that we may, perhaps, go so far, as to admit, from this fact, that, in an *exhausted* condition of the system, the blood passes through the lungs most easily in the state of full inspiration, but contends, that we are not warranted to make the same conclusion under ordinary conditions of the system; because, we know from an experiment of GOODWYN, carefully performed, that when water was introduced between the pleuræ of a dog, so as to occupy one-third of the cavity, no retardation of the blood in the lungs took place, though the respiration was rendered laborious; a view, which is also supported by BICHAT, from express observations and experiments. Further, in the healthy state of the system, we respire 20 times in a minute, but the heart contracts 80 times; so that, during each act of respiration, there must be four contractions of the heart, which occur equally in the state of expiration, or inspiration, without any corresponding change in the force or volume of the pulse. Besides, we find it very difficult by the utmost effort, whether of inhaling or exhaling the air, to produce any effect on the pulse; yet what a difference between these and the ordinary condition of the lungs.

Dr. Bostock speaks of various other mechanical effects of the function, and among others, the compression of the abdominal viscera, the lacteals, &c. In the forced or extraordinary actions of the thorax, says he, these effects may be even considerable, although we cannot suppose that they will be very great in ordinary respiration; and upon the whole, we may conclude, that they are much less powerful than they were supposed to be by the physiologists of the last century.

At section 3, he begins his remarks on the changes produced upon the air by respiration. It was not until the time of BOYLE, that physiologists were fully sensible of the fact, that a perpetual supply of successive portions of unrespired air is essential to life. This fact, with some of its connected phenomena, was known to SYLVIUS, BAGLIVI, BORELLI, LOWER, and WILLIS. But MAYOW announced the air of the atmosphere to be a compound body, and that it contained, as one of its constituents, a peculiar gaseous substance, which he denominated nitro-aërial spirit: this substance supports flame, and is imparted to the blood by the act of breathing. These ideas, however, are inapplicable to the modern doctrine of oxygen, or any other chemical principle. HALES, BOERHAAVE, and HALLER, were equally ignorant of the real nature of the changes produced on the air by respiration, as the before-mentioned persons.

Black ascertained the existence of fixed air. He knew that it was disengaged in the lungs, and occasioned the difference between inspired and expired air. Black made his discovery about 1757, and Priestley published his brilliant discoveries in relation to oxygen, in 1772. After him, Lavoisier took up the subject, and showed that in respiration we have not only an abstraction of oxygen, but a production of carbonic acid; while the nitrogen is not affected, serving merely the purpose of diluting the oxygen.

The author proceeds at p. 71. to examine, in succession, the questions, as to the quantity of oxygen abstracted from the air; the carbonic acid formed; whether the volume of the air be affected by respiration; whether the nitrogen be affected; and, lastly, what is the origin and quantity of the aqueous vapour exhaled in the process. We regret that we cannot follow him throughout this interesting examination, wherein he arranges and elucidates all the chief experiments and theories of the most distinguished writers on the subject; but we will at least quote the whole of his "general conclusions."

"Having now examined, in succession, the various effects which respiration has been supposed to produce upon the air, I shall briefly recapitulate the results of our inquiry. 1. Air which has been respired, loses a part of its oxygen; the quantity varies considerably, not only in the different kinds of animals, but in different animals of the same species, and even in the same animal at different times, according to the operation of certain external agents, and of certain states of the constitution and functions. Upon an average, we may assume, that a man, under ordinary circumstances, consumes about 45,000 cubic inches, or nearly 15,500 grains of oxygen in 24 hours. 2. A quantity of carbonic acid is produced, the amount of which varies very much according to circumstances, both external and internal; its quantity depends, to a certain extent, upon the quantity of oxygen consumed, but the two are not in exact proportion to each other. In a great majority of cases, the quantity of carbonic acid produced, will be found to be less than that of the oxygen consumed; so that there will be a surplus quantity of oxygen, more than is necessary for the production of the carbonic acid. In consequence of the variations which take place in the amount of the carbonic acid produced, it appears almost impossible to fix upon any number which may indicate the average quantity, but it may be stated to be somewhere about 40,000 cubic inches in 24 hours. This will weigh 18,600 grains, or nearly 3 lbs. and will contain 5,208 grains of charcoal, and 13,392 grains of oxygen, which will be 2,100 grains less than the quantity of oxygen consumed. 3. The volume of air is diminished by respiration; but this, like the changes mentioned above, varies so much at different times, that it is almost impossible to form any statement of the quantity; perhaps we may assume that air, which has been once respired, is diminished by about 1-80th of its bulk. 4. It appears probable that nitrogen is both absorbed by the lungs, and exhaled from them; but the processes of absorption and exhalation differ very much, both in their absolute quantity, and in the relation which they bear to each other; so that the proportion of nitrogen in the air, is sometimes diminished by respiration, is occasionally increased, and occasionally remains without alteration. 5. A quantity of aqueous vapour is discharged from the lungs, mixed with, or diffused through the air of expiration, but we have not sufficient data, from which to decide upon its amount; and it is probable that the quantity varies considerably in the different conditions of the system, and the different situations in which the body is placed." p. 110—12.

In sect. 4th, the author examines "the change produced upon the blood by respiration." In early times, a numerous and learned body of physiologists, supposed the effect produced on the blood to be merely mechanical. A second class, in which we find the illustrious names of Harvey, Boyle, Hales, and Haller, supposed that the blood, in its passage through the lungs, discharged some noxious matter, which, together with the aqueous vapour, was removed by respiration; while a third class, among whom we may rank Lower, Hooke, Mayow, and many of the Italians, conceived that the air imparted something to the blood, by which it was converted into the arterial state. We are indebted to Lower for the discovery of the fact, that the change of blood from venous to arterial, takes place in the capillaries of the lungs; a discovery which he demonstrated by the most ingenious experiments. He naturally, from these experiments, concluded that this change is effected by the air. These results were defended and illustrated by Cigna of Turin. Priestley took up Cigna's opinion, and showed, that a piece of purple crassamentum is changed more suddenly, and completely, to the scarlet tint, by contact with oxygen, than with atmospheric air; while nitrogen, hydrogen, and carbonic acid, reduce the scarlet crassamentum back again to the purple tint. He thought that phlogiston was separated from the blood by the act of respiration, and that this was the principal end of that function. Lavoisier, having discovered the composition of carbonic acid, inferred from all the facts, that the principal difference between arterial and venous blood, consists in the latter possessing a quantity of the last mentioned substance, which it throws off in the lungs, whereby the blood becomes *decarbonized*.

CRAWFORD made the first attempt to explain the source from whence the carbon is derived. He supposed, that as the old particles, of which the body is constituted, become effete, their place is supplied by new ones continually deposited in their room. As the blood is unceasingly depositing its nutritious matter, it is sustaining a constant loss, and becomes even more deteriorated by receiving the effete portions, or putrescent matter, which, however, are afterwards discharged in the lungs. These effects are produced in the systemic capillary vessels; and hence the difference between arterial and venous blood. Our author objects to this part of CRAWFORD's hypothesis, that we have no proof that the capillary vessels can take up any thing once deposited, and that we have an obvious source of carbon in the thoracic duct, which empties the chyle into the veins near the heart; and hence, he is led to conclude, that blood becomes venalized, not by what it gains in passing into the veins, but by what it loses in forming the various secretions, or in the nutritive processes.

MR. ELLIS's hypothesis concerning the source of the carbon, is very different. He thinks that it is an excretion from the exhalant vessels of the lungs. These vessels have the power to discharge both carbon and water; the former in a gaseous, yet uncombined state, but becoming carbonic acid when united with the oxygen of the air in the vesicles of the lungs.

A different view was taken by LA GRANGE, who conceived that the oxygen enters the blood, and forms a loose combination with it, so as to occasion the scarlet tint to take place. As it proceeds in the round of the circulation, it enters into an intimate union with the carbon, forming carbonic acid, and thus venalizes the mass. To enforce this theory, many experiments have been made, particularly by HASSENFRATZ; one of which was to fill a number of tubes with arterial blood, and seal them hermetically. When this was done, he uniformly found that the blood, after some time, lost its scarlet colour, and acquired the complete venous aspect, which might be considered as a satisfactory proof, that venalization is dependent on a gradual and progressive union of particles already present.

"The merits of the question," says Dr. B. "may be rested almost exclusively upon the single point, whether the oxygen which is consumed be exactly replaced by an equal bulk of carbonic acid, the nitrogen remaining altogether passive; or whether there be a surplus quantity of oxygen absorbed by the blood, as well as a reciprocal absorption and exhalation of nitrogen. After duly balancing the facts and arguments that have been advanced on each side of the question, I have been induced to adopt the latter of these opinions; and, as a certain degree of absorption of both oxygen and nitrogen, appears to take place in the lungs, there is no difficulty in supposing that this is the case with respect to the whole of what is employed in the system; and we shall probably find it to be more consonant to the other operations of the animal economy, to conceive of the union between the oxygen and the carbon, being brought about during the course of the circulation, than by a momentary contact in the lungs alone." p. 134.

After remarking somewhat at large on the experiments of Edwards, and on the questions, is the whole air absorbed, and on which part of the blood does the air act, he recapitulates the section as follows:

"1. The blood, when it leaves the right side of the heart, is of a purple colour; during its passage through the lungs, it is converted into a bright scarlet, and again acquires the purple colour when it arives at the venous part of the circulation. 2. This change from purple to scarlet, is effected by the oxygen of the atmospheric air, which is received into the vesicles of the lungs. 3. The same change of colour may be produced upon the crassamentum of the blood out of the vessels, by exposing it to atmospheric air, or still more to oxygen; while, on the contrary, scarlet blood is rendered purple, by exposure to hydrogen, nitrogen, or carbonic acid. 4. The blood, in passing through the lungs, discharges a quantity of carbon, which is expired in combination with oxygen, under the form of carbonic acid gas. 5. A quantity of aqueous vapour is discharged from the lungs; but this is rather to be considered as the result of secretion, or transudation, than as a proper effect of respiration. 6. The blood, in passing through the lungs, absorbs a portion of oxygen; and this appears to be more than what is necessary for the formation of the carbonic acid which is discharged. 7. It is probable that the blood, as it passes through the lungs, both absorbs and exhales nitrogen; the proportion which these operations bear to each other, being very variable, and depending upon certain states of the system, or upon the operation of external agents. 8. It appears, upon the whole, probable, that the atmospheric air is absorbed by the blood in its whole substance; and that certain proportions of each of its ingredients are discharged or retained, according to the demands of the system. 9. We have no proof that hydrogen is discharged from the blood." p. 143.

We cannot follow Dr. Bostock, in the long and interesting discussion which now ensues, on the respiration of different gases, or on the remote effects of this function on the living system; in which he reviews the experiments of Legallois, Provencal, and others, and examines the nature of the vital principle, as it is called, concerning which he speaks in the following terms:

> "I conceive that the present state of our knowledge does not admit of our giving a satisfactory answer to this question; but, so far as we are able to understand it, I think it is very evident that it depends upon no single cause or principle, but upon the conjoined operation of many actions, which together constitute life, or by the operation of which the living differs from the dead animal. The regular supply of fresh materials, as furnished by the digestive organs, the removal of various secretions and excretions, and lastly, the abstraction by the lungs of the superfluous carbon and water, effects which depend upon the united action of both chemical, mechanical, and vital actions, are among the various causes which probably all contribute to the ultimate object." p. 192.

We must now proceed to chapter VIII. which treats of the difficult and contested subject of animal temperature, which is handled in the following order:—1. What is the efficient cause or source of animal heat; 2. By what means is its uniformity preserved; 3. How is the body cooled at high temperatures; and lastly, what is the connexion between the functions of calorification, and the vital powers of the system. Here, as usual, Dr. B. gives us a concise, but spirited sketch of early opinions, which is admirably calculated to lead on the mind of the student to a clear and dispassionate view of the most approved doctrines of the present day; because, when the mind is permitted to trace out, step by step, the progress which has been gradually made from the first inceptions of knowledge on any subject, to the highest possible attainments therein, it will rest more permanently, and scan more clearly the whole retrospect, which lies as it were open and naked under the eye. This sketch we must be satisfied with commending to our readers, being obliged ourselves to commence with Lavoisier, who, observing a perfect similarity between the results which he had obtained from the combustion of charcoal and the products of respiration, inferred, as Dr. Black had done, that heat must be generated by the formation of carbonic acid in the lungs. Shortly after this period, Crawford commenced his investigations, and founded his theory on the three following positions:—1. That as the air in the lungs undergoes the same change as takes place in common combustion, so heat is generated in a similar manner. 2. The same process which converts the oxygen of the inspired air into carbonic acid, converts venous into arterial blood; but arterial possesses a greater *capacity for heat*[*] than venous blood, and hence, the heat which would otherwise render the arterial blood hotter than the venous, is employed in saturating its *greater capacity*, and does not actually raise the temperature. 3. The heat is not, therefore, set at liberty in the lungs, but in the general system, where it supports the animal temperature, and that, in proportion as the mass becomes venalized, and of diminished capacity for heat.

> "The hypothesis which Crawford," says Dr. B., "constructed upon the abovementioned positions professed to be the result of direct experiment in all its parts. It removed the objection that had been urged against Black's doctrine, and afforded one of the most interesting and beautiful specimens of the application of physical and chemical reasoning to the animal economy, that had ever been presented to the world." p. 257.

Nevertheless, this theory has been controverted by many able experiments.

Dr. Davy found the blood of the left side of the heart, one degree warmer than that of the right side, and Magendie says it is warmed about one per cent. in passing through the lungs; while Mr. Coleman says, that though the external surface of the heart is equally warm on both sides, yet the blood in the right, is one or two degrees warmer than that in the left ventricle. All these varieties of opinions may serve to convince us, that such experiments must be very difficult to perform with that degree of accuracy and precision, which may entitle them to our entire reliance and confidence. Such experiments, therefore, might be regarded as insufficient to overturn Crawford's doctrine of unequal capacity, and equal temperature. But Mr. Brodie attacked the doctrine more powerfully, by his celebrated results, obtained by artificial respiration in decapitated animals. Cutting off the head of a rabbit, he secured the vessels, and kept up respiration by means of a bellows. The action of the heart continued under this operation, and the venous blood became arterialized, by passing through the lungs, as perfectly as in health, and was attended by the usual disengagement of carbonic acid; but there was no disengagement of animal temperature, it being found, that the body cooled even more rapidly than in a decapitated rabbit which had not been made to respire artificially.

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[*] The *capacity* of arterial exceeds that of venous blood, as 114.5 to 100, according to Crawford. Vide p. 258. Bostock.

Such were the apparent plainness and simplicity of the inferences from these experiments, that it was thought the chemical theory must be entirely abandoned, for the opinion that respiration, so far as respects the production of carbonic acid, is not the cause of animal temperature, and is only remotely connected with it, and that the lungs have no immediate or direct concern in the operation, but that it depends upon the nervous influence. Messrs. BRANDE, YOUNG, THOMPSON, and EARLE, are cited as being of this opinion. Dr. BOSTOCK, however, points out several sources of fallacy in the above results, and still adheres to the former opinion, being enlightened by the experiments of LEGALLOIS and PHILIP.

> "We may, therefore, conclude upon the whole," says he, "that although there are many difficulties which attach to particular parts of the subject, the source of animal heat is in the action of the air upon the blood, and that it ultimately depends upon the abstraction of carbon from this fluid, and the conversion of oxygen into carbonic acid." p. 274.

We shall now abandon this part of the work, and proceed to a sketch of what Dr. B. has given us in chapter IX, which treats of the subject of *secretion*.

The idea formerly attached to the word secretion, was, that it meant separation, or the separation from the mass of the blood, of something that existed in it, by certain mechanical means or chemical operations, analogous to precipitation. At present, it is thought to consist in the production of a substance, which, as such, did not previously exist there.

> "Perhaps," says the author, "it would be more correct to combine both these ideas, in our conception of the process of secretion, and to define it, that function by which a substance is separated from the blood, either with, or without experiencing any change during its separation." p. 316.

Thirteen pages are next occupied with observations on the structure of glands, &c., and remarks on preceding arrangements of the secretions, which being liable to many objections, Dr. B.

has been induced to substitute for them, a new classification, under the eight following heads, viz. The aqueous, the albuminous, the mucous, the gelatinous, the fibrinous, the oleaginous, the resinous, and the saline.

Overlooking the remarks on the aqueous and albuminous secretions, we shall cite some of those which he makes on the mucous.

"We now come to the 3rd class of secretions, the mucous, which differ from the aqueous and albuminous, in this essential particular, that whereas the two former appear to consist of substances that are merely separated from the blood, the essential character of the mucous depends upon a substance which did not exist in the blood, but which is formed by the action of the gland. We accordingly find that in the case of these secretions, we are generally able to demonstrate the organ by which they are produced, and that some of the mucous glands are among the most elaborate with which the body is furnished. The mucous secretions are distinguished by their viscidity, or their capacity of being drawn out into threads, and by being with difficulty soluble in water, although they are already united to a considerable quantity of it. The animal matter, which forms the basis of the mucous secretions, and which gives them their essential characters, appears in many of its chemical relations to resemble albumen in the coagulated state; so that we are led to suppose that at least one effect of the mucous glands, consists in the coagulation of the albumen of the blood." p. 340.

The mucous secretions differ also from the albuminous, in the state of their salts, which are neutral, while in the latter, as in serum for example, they are uncombined. The mucous secretions are also peculiar in their seat, being either directly exposed to the air, or found in cavities which have external communication. Sometimes the glandular apparatus is very large, as in the salivary glands; but in other cases, a substance nearly resembling saliva is formed without the intervention of any gland that we are able to detect. Under the head of mucous secretions, are comprised all the products of the mucous surfaces, the saliva, and the gastric juice; although it is difficult to conceive that the latter is not possessed of some peculiar ingredient. He is disposed also to rank with them, the tears, a considerable part of the seminal fluid, and perhaps the pancreatic juice, though this last is very little understood.

Dr. B. thinks that

"If the idea be correct, that the substance which gives the mucous secretions their characteristic properties be albumen in the coagulated state, it will follow that the solid membranous bodies must belong to this class, rather than to the albuminous, and ought indeed to be considered as the completion of that process, of which a mucous secretion is the first step."

He infers, also, that if the albuminous and mucous substances are so nearly allied as above supposed, a slight change in the secretory action may change the product, and give an albuminous for a mucous matter, and vice versa; as he has observed in mercurial salivation, and as most practitioners have probably observed with him.

Passing over the gelatinous, we come next to the fibrinous secretions. Muscular fibre is the result of this secretory process, and seems to be a mere separation of a substance before existing in the blood, which the author thinks is accomplished as a mere deposite, in the proper situation, from the mouths of the capillary vessels; requiring no further change to fit it for its functions.

It may be doubted whether there be any other animal matter that ought to be arranged under the head of fibrinous secretions; and Dr. B. has already arranged such as possess a fibrous structure under the head of albuminous products. We here expected from him, who has so much esteem for HALLER and his writings, a complete examination of the question, as to the nature of the fibrous coat of the arteries, which, says he, "probably must be considered as a mere variety of the muscular structure;" but the subject has been touched on in the first volume, and the reader is referred to it, for some remarks on the celebrated opinion of BERZELIUS and YOUNG, that the chemical composition of these parts' does not seem susceptible of reconcilement with the contractile phenomena attributed to muscular fibre properly so called. We will remark here, that the appearances presented by the fibrous coat of the arteries are not very different from those exhibited by the uterus, immediately after delivery, and when freed from blood; yet who is ready to deny to the womb, a muscular contractility of the most decided, and even powerful kind? The author does not seem ready to admit even the accuracy of BERZELIUS' experiments, and says it would be desirable to compare the elementary analysis of the muscles of fishes, and of the mollusca, with those of the mammalia, in order to ascertain with what varieties of chemical composition, muscular contractility can be connected. We should probably, however, find some difficulty in reconciling the chemical with the physiological arrangement.

Under the head of resinous secretions, we have an account of the bile, with the analysis of that fluid by various hands, as THENARD, BERZELIUS, &c. Our attention, however, was particularly attracted to the following observations, which are of more general interest than the minuter details.

"The great size of the liver, and the peculiar nature of the fluid which it secretes, has naturally led to various conjectures, respecting its relation to the general actions of the system, many of which are palpably incorrect, and founded upon fundamentally erroneous doctrines. It was a favourite opinion of some of the older physiologists, that the bile was a highly putrescent fluid; and they supposed that one principal use of the liver, was to carry off from the system, all the matter which was disposed to the putrid fermentation. By the modern physiologists, the bile has been supposed to be immediately useful in promoting the process of digestion, and it is very probable that this is the case; but there are various pathological considerations which induce us to regard the bile as essentially an excrementitious substance, although, in conformity with the usual operations of the animal economy, some other important purpose may be served by it. When the venous blood becomes loaded with inflammable matter, which cannot be discharged from the lungs, principally in consequence of the high temperature to which the animal is exposed, and when, from certain causes, one of which appears to be the increase of cutaneous perspiration, this excess of inflammable matter is not employed in the deposition of fat, the liver would appear to be the organ by which it is removed. In ordinary cases, the quantity discharged is small, probably not more than what is sufficient to preserve the liver in its healthy state, and to perform the secondary objects to which the function is subservient; but when, from a conjunction of circumstances, there is an excess of inflammable matter, its accumulation is prevented by an increased discharge of bile." p. 369.

Urea also possesses the characters of a resin, but not so completely as the resinous part of the bile. It is probably wholly excrementitious, and as it contains a large proportion of nitrogen, it is inferred that the kidney is the principal emunctory for that substance, whose accumulation beyond the due proportion, would be inconsistent with health, or, perhaps, with life itself. Dr. B. here notices a difficulty that had arisen on the subject of the origin of nitrogen in graminivorous animals; and, as the food which they consume contains almost no nitrogen, this difficulty would be very great, provided no source was admitted for its introduction into the body except the ingesta of the stomach. But if we concede, as has been done in a preceding page, that nitrogen is constantly absorbed by the lungs, the difficulty vanishes, and we have an abundant supply of it, for the formation of the fibrin of the muscles, which, being often suddenly contracted, demand an excess of nitrogen to be always present for such emergencies. This excess is kept down by the kidneys.

A curious and important physiological question is discussed at p. 383, under the head of saline secretions, the last in the arrangement. It respects the origin of the salts which exist in the fluids or solids of animals, especially the earth of bones; whether it is actually formed in the body, or received into it with the aliment or drink, and afterwards separated and deposited.

> "A great proportion of the substance of several of the testacea, and crustacea, consists of carbonate of lime; and, it appears probable, that many of the large calcareous strata which exist in different parts of the world, have originated from the detritus, or decomposition of these animals. We are then naturally led to inquire what is the origin of this lime? Did it exist in some other form previous to the creation of these animals? Did they receive it into their system, and organize its particles so as to mould it into their shells and crusts? or have their digestive and secreting organs the power of actually generating lime?"

The same kind of difficulty obtrudes itself in regard to vegetables. The carbon, earths, and metals, which they contain, are insoluble in water, and yet it is by the imbibition of fluids that they are nourished and grow. VAUQUELIN and PROUT have come to the conclusion, that these substances are developed in the animal by the vital powers. Dr. PROUT, by careful analysis of the egg-shell and its contents, at different stages of its progress towards finished incubation, satisfied himself, that the chick had acquired a greater quantity of earthy matter than existed in the egg in its early state. Dr. PROUT speaks as follows: "I by no means wish to be understood to assert, that the earth is *not* derived from the shell; because, in this case, the only alternative left me, is to assert, that it is formed by transmutation from other matter—a confession which I confess myself not bold enough to make in the present state of our knowledge, however strongly I may be inclined to believe, that, within certain limits, this power is to be ranked among the capabilities of the vital energies." Similar results have been obtained from the analysis of vegetables planted in sulphur or clean washed sand, and moistened with distilled water.

> "The conjoined evidence," says the author, "of BRACONNOT, SHRADER, and EINHOF, seems to prove very clearly, that we cannot account for the introduction of the constituents of vegetables from the soil or water with which they are in contact. BRACONNOT appears to have conducted his operations with great attention to accuracy. He concludes that 'organic force, aided by solar light, develops in plants, substances which have been regarded as simple, such as earths, alkalies, metals, sulphur, phosphorus, carbon, and perhaps azote.'" Vide p. 388.

Either some of the bodies which have heretofore been regarded as simple, such as oxygen and carbon, are really compounds, or there is a creation of absolutely new matter by the energies of the living organs. Dr. BOSTOCK is of the former of these sentiments, though it appears to be contradicted by numerous facts, which, however, are less difficult to surmount than the idea of an entire new creation of matter.

The work is occupied from p. 389 to 427, with a close and rigid examination of the theories of secretion, whether animist, chemical, mechanical, or nervous. Of course, we are furnished with a review of the opinions of the Stahlians, maintained on this subject by JOHN HUNTER, DARWIN, BLUMENBACH, and BICHAT, and said to be still the ruling doctrine of the London school. The nervous doctrine, also, as sustained by BRODIE, PHILIP, and others, is extensively commented on. The author's own opinions are set forth as follows:

> "When we consider the mere act of secretion, to which our present inquiry extends, I should say that contractility is the only power which is essential to the operation. The action of the heart in the first instance, propels the blood into the capillaries; it is transmitted through these with different degrees of velocity, and subjected to various modifications of compression, so that its constituents are more or less intimately mixed together. Some of its finer parts are transmitted into vessels too minute to admit of those that are more viscid or tenacious; while, at the same time, it may be supposed to experience various alterations from change of temperature, from the action of the atmosphere, or from the mixture of the different secretions with each other."

He proceeds to state his belief, that though the nervous action is not essential to secretion, nevertheless the organs of secretion in the higher animals are very much influenced by the nerves; which, like an additional agent, enable the organs to multiply results in very great variety.

> "Still, however, we can form no clear conception of any mode in which the nerves can act upon the organs of secretion, except through the me-

dium of the circulating system; so that here again we reduce the primary operation to the contractility of the muscular fibre, notwithstanding the share which the nervous system may have in the effects, considered as a secondary agent." p. 426.

With regard to the formation of the saline secretions, he confesses the difficulty of explanation to be insurmountable, as we stated before when speaking of those products.

Chapter X. comprising 98 pages, teaches us the doctrines of digestion. It is manifestly impossible to treat of this department as we should desire. We can only state, that Dr. BOSTOCK rejects the new opinion of MONTEGRE and others, and supports the claims of REAUMUR, STEEVENS, and SPALLANZANI, to our credence for their veracity and fairness. It is true, as Dr. BOSTOCK says, that

> "The experiments of SPALLANZANI on this subject are quite decisive, and so varied and multiplied, as to meet every objection that could be urged against them. We imagine that our readers are well acquainted with these experiments, related with a candour, naiveté, and spirit, which render them in the highest degree amusing as well as instructive."

Chapter XI, which treats of absorption, commences on the 584th page. By the absorbent system he means to designate those organs which are exclusively employed in the function of absorption, and these consist of the lacteals, the lymphatics, the conglobate glands, and the thoracic duct. An elaborate description is given of the apparatus of absorption, with a pretty full history of the discovery of it by ASELLI, RUDBECK, BARTHOLIN, and PREQUET, for an account of which we might refer our readers, as well to this book as to an article in the Philadelphia Journal of the Medical and Physical Sciences, published two or three years ago by the present writer. We have also an account of the dispute on the subject of venous absorption, which arose between Dr. WM. HUNTER, and MONROE *Secundus*. In relation to MAGENDIE's experiment on the dog, which seemed to prove beyond doubt or objection, the absorption by veins, Dr. B. remarks that he does not

> "Feel disposed to assent to the modern doctrine of absorption merely upon the faith of experiments, until they are further repeated and diversified; but in the mean time we may go so far as to assert, that venous absorption is neither impossible, nor, perhaps, antecedently improbable; and that with the evidence which we have in its favour, we can admit of no physiological hypothesis, or train of reasoning, which necessarily involves its non-existence." p. 567.

We are surprised at this admission from Dr. Bostock, and should be willing to attempt, if we had a proper opportunity, a train of reasoning which we think would prove its non-existence. If, as the school of the Val de Grace is attempting to teach us, there be in all the tissues a parenchymatous or extra-vascular substance, in which the blood is regularly, and normally effused from the open ends of minute vessels, and kept in a state of extra-vascular circulation, till it is pumped up by the open mouths of other capillaries, then the question is settled in the affirmative. No man would have the hardihood to deny, that the upas tieuté or other poison being mixed with this effused circulating fluid might be passed directly onwards to the heart. Who is ready to admit this parenchyma? The observations of M. Rossi, related in the Quarterly Summary of our last number at p. 374, show manifestly, what has long since been asserted by Cruikshank, that there are many points of connexion between the sanguiferous and lymphatic vessels, besides the large ones near the heart. We have no doubt that such absorbent ducts are abundant in all parts of the body, and afford ample explanation of the supposed phenomena of venous absorption, which are certainly not more reasonable than the antiquated and ridiculous offices of the meseraick veins, which with infinite good temper could not only suck up chylus and carry it to the liver for hæmatosis, but afterwards like a servant of all work send it forth for the nourishment of the *parts*.

Here we must stop, when we have added that every medical man who has not Dr. Bostock's work in his library, is without the means of a vast fund of information, which to be wanting in, is equally injurious to himself, and the unspeakable responsibilities committed to his professional skill and honour.

ARTICLE XI.—*Recherches Anatomico-pathologiques sur l'Encéphale et ses Dépendances.* Par F. LALLEMAND, Professeur de Clinique Chirurgicale à la Faculté de Médecine de Montpellier, Chirurgien en chef de l'hôpital, &c. "Ars medica tota in observationibus." F. HOFFMAN. "Neque enim numerandæ sunt, sed perpendendæ, observationes." MORGAGNI. A Paris, Tom. I. Parties 1, 2, 3.—1824. Tom. II. Partie 1.—1825. pp. 512 and 230.

Traité Clinique et Physiologique de l'Encéphalite, ou Inflammation du Cerveau, et de ses Suites, telles que le Ramollissement, la Suppuration, les Abcès, les Tubercules, le Squirrhe, le Cancer, etc. Par M.-J. BOUILLAUD, D. M. Ancien interne des hôpitaux, &c. "La pathologie est la physiologie de l'homme malade." MAGENDIE. A Paris, 1825. pp. 350.

WE could not give a better general idea of the views evidently entertained, and faithfully followed up by the authors of the two works we have cited, than by inserting their mottos. Those pithy expressions, which are commonly introduced in the titles of books, to serve as standard bearers to the thoughts of the author, have often little to do with the work; but the examples before us eminently characterize the productions which they introduce. M. LALLEMAND has not only adhered in the strictest manner to the process of direct induction from facts of actual observation, but has accommodated his reasonings and inferences, to the order in which he has inserted them. Thus, he first gives us a case, then calls our attention to some one or two of its peculiarities: next gives us another example, compares it with the first; and, after a considerable series of such comparisons, he proceeds to make a few simple deductions, still, however, of but limited application. It is not until he has collected a large congeries of cases, each superimposed on the other, in a manner remarkably similar to the succession of propositions in the classical treatises of geometry, that he pauses to recapitulate; and the reader suddenly discovers, that one species or form of cerebral disease has been already fully described and exemplified. Like the character in MOLIERE, who found he had been talking prose all his life without knowing it, we are made accurate pathologists, and have become skilful in diagnosis, while we have seemed to ourselves to be only feeling out the correct road.

To achieve this object, recourse has been had to many means. Although provided with a large amount of cases observed by himself, or communicated by his personal friends, he has been well aware of the value of the labours of the great pathologist of Padua. Full as he was of that enthusiasm which prompts the reviser and reformer only to draw from the life, when he came to examine, "Nature and MORGAGNI were he found the same." In the inexhaustible mine of the illustrious Italian, he found faithfully portrayed an immense number of those carefully observed facts, which serve as the foundation, or rather composition of every real science; and it only remained for him to make selections from these, and to arrange and compare them with what he obtained from other sources. To have drawn exclusively from nature, would have rendered his work more original; but it would have been an injury to science, to neglect any accessible source of truth; and he did not feel himself at liberty to forsake the advantage, which, as EMERSON the mathematician rather coarsely remarks, is possessed by every one, who is placed, as it were, upon the shoulders of a predecessor. Besides his selections from MORGAGNI, numerous contributions were obtained; among others, from a publication by Dr. DAN DE LA VAUTERIE, and from Dr. ABERCROMBIE's paper in the Edinburgh Journal; a memoir which seems to have found especial favour in the eyes of the Parisian physicians, having been translated, republished, and not a little quoted among them.

The work of M. BOUILLAUD, on the other hand, appears solely designed to methodize and reduce to the system of M. BROUSSAIS, the facts possessed on the subject. He objects to M. LALLEMAND, as so many consequences of the adoption by the latter of the epistolary form, that his facts are not brought together so as to elucidate one another to the best advantage; and that frequent "longueurs" and repetitions are inevitably produced. M. BOUILLAUD has compressed forty-five cases into a solid mass, classified according to his principles, and interspersed with brief reflections; not, however, with discussions and dissertations at length, as professor LALLEMAND has done. The cases occupy 228 pages; and are followed by 119 more of general descriptions and principles, which close the volume. These latter are extremely brief; the author, like several other writers of the modern school, having economized his reader's time, and, after furnishing, for proof and illustration, abundance of examples drawn from nature, having made his doctrinal matters as concise as possible.

The manner in which the present works, as well as numerous similar ones to which the Paris school has lately given birth, are written, is worthy of the highest praise. It is copied from MORGAGNI, whom M. LALLEMAND has further followed in the epistolary form of his publication. We allude to the practice of premising a large number of narratives of individual cases, so selected and classified as to illustrate each other, and render it easier to draw general inferences from them. We frequently meet with writers who refer us entirely to their groups of cases, to obtain that general idea of a disease, which is commonly aimed at by a definition and description. While we are reading faithful narratives of facts, we cannot, they would persuade us, go astray. We know, that whatever we meet with, however unsatisfactory or incomplete, is so much truth, and cannot mislead us. We are expatiating in the fields of nature, and can encounter nothing but reality in every direction. Still, however, in this, as in all other modes of philosophizing, we meet with those checks and qualifications which so forcibly remind us of the imperfection of human science. Passing over what was once most energetically discussed in the Philadelphia Medical Society, an alleged want of *veracity* in medical records, a charge, infamous as it is, not absolutely without foundation—omitting this, there is no doubt that facts can be so arranged, as not only to illustrate, but to lend each other a colour, and lead us to the peculiar dogmas of the compiler, as if by the plainest process of direct induction. In the same manner, select passages of scripture may be so disposed as to express the opinions of any one of a great variety of religious communities. The light which facts mutually shed on each other, is the broad and glorious glow of the sun of truth; but, like the corporeal ray, it is so analysed and refracted by the human instruments through which it passes, that it is too frequently allowed to shine only in colours. If, however, we carry on the metaphor, we may add, that what is thus lost in accuracy, may be regained by quantity and mixture; and that, as the uncertain combination is augmented, we continually approach, by a gradual but inevitable progress, to that vestal white of certainty, which we are never designed absolutely to obtain. We live in a world of approximations, probabilities, and chances; and to approach truth, ought to be the object of our unceasing efforts.

MORGAGNI enumerates, among the heads of his letters or chapters which treat of diseases of the head, head-ach, apoplexy and the other soporific affections, phrenitis, paraphrenitis, delirium, madness, melancholy, hydrophobia, epilepsy, convulsions, palsy, hydrocephalus, hydrorachitis, and certain affections of the eyes, nose, and ears. M. LALLEMAND has sketched, in his preface, the classification which he intends to adopt for these diseases. It is unnecessary here to cite it, any further than it has been completed in those parts of the work which have come to hand. These embrace, in Letter I, softening of the brain, accompanied by vascular injection, infiltration, or effusion of blood; in Letter II, softening with infiltration of pus, or commencing suppuration; in Letter III, recent abscess; and in Letter IV, which commences the 2nd volume, encysted abscess. This completes, according to M. LALLEMAND's views, an entire outline of the inflammatory affections of the brain. Sudden congestion, and the hæmorrhagic effort, embracing the whole subject of apoplexy, are postponed: and the progressive continuance of his labours will lead him to the consideration of tubercles, and other preternatural productions, and of the symptoms produced by the presence of foreign bodies; next, to diseases of the arachnoid membrane; and finally, to those of the medulla spinalis. This classification is drawn merely from the *leading* morbid appearances; as they are found, most frequently, combined with each other in various degrees of intensity. Dr. BOUILLAUD goes over nearly the same ground; following, however, a somewhat different classification, on which we shall not insist.

The whole of the subjects here enumerated form a field by far too comprehensive for the limited time and space allotted for this review; and we shall, therefore, confine ourselves to some of the points of leading interest, as determined by their intrinsic importance, or their being less familiar to the profession in America.

Inflammations of the brain and its appendages are far more *frequent* than has been generally supposed. They not only occur in those cases which, by the nosologists, are usually referred to *phrenitis*, but, very frequently indeed, in fevers. We here find ourselves, after the example of MM. Lallemand, Georget, Parent, Martinet, etc., among his compatriots, and in fact, of nearly every one who has devoted particular attention to the diseases of the head, placed in direct opposition to the celebrated Broussais.

> "The brain," says this distinguished teacher, "is, of all the organs, the least subject to phlegmasiæ; because it is hardly ever directly affected by morbid causes, but rather by the sympathies which unite it with the other viscera."

Here, however, it is probable that the reformer was in a great measure influenced by his not having examined the head with sufficient care in his dissections and clinical examinations: at least we should judge so, from the fact of his great and fundamental work on the "Chronic Phlegmasiæ" having been confined to the viscera of the thorax and abdomen. Even his avowed pupil, in the last named of the works before us, acknowledges, that "the pathology of the brain has not yet been sufficiently subjected to the crucible of the physiological doctrine;" and in this crucible he finds it to assume a far greater importance than could be anticipated from the simple perusal of the general writings of his school.

Diagnosis.—MM. Lallemand, Parent, and Martinet, have concluded, that head-ach, delirium, and convulsions, when they occur with decided marks of inflammation, are characteristic of an affection of the *tunica arachnoidea;* which is liable to diseases similar to those of other serous membranes. When, on the other hand, we have coma, and palsy, these are proofs of a deeper and more severe læsion, involving a portion of the *substance* of the brain itself. In the one case, we have symptoms of an undue excitement, and an irregularity in the vital activity of the brain; in the other, the marks of a more or less complete privation of them. M. Georget has endeavoured to show, and we think with success, that the first catalogue of symptoms were really found by these anatomists to be combined, in almost every instance, with a superficial disease of the brain itself, and not exclusively with that of the arachnoidea. Thus, in almost all M. Lallemand's cases, there was an inflammatory lymph deposited *under* but not *on* the arachnoidea; the *pia mater* was thickened and reddened, and red vessels penetrated the adjacent portion of the brain; while a copious secretion of serous fluid was frequently found in the cellular matter covering and uniting all these parts. Now, according to M. Georget, we should look, in inflammation of a serous membrane, for effusions of lymph, pus, and serum, on its *free surface*, and not in the cellular texture by which it adheres to the viscera it covers. On the other hand, in what situation should we expect to find the redness, lymph, thickening, and serous exhalation of a superficial inflammation of the brain, but in the *pia mater?* This membrane is known to be the only means by which the convolutions are supplied with their blood-vessels. If, therefore, the head-ach, delirium, and convulsions, which are certainly pretty strong indications of an affection of the brain itself, if, we say, they be produced by an inflammation of a portion of the convolutions, although not so deep as in the other cases alluded to, nor of so long a duration, we cannot reasonably entertain any other expectation than to find the pia mater reddened, and turgid with lymph and serum. Exactly in the same manner, when there exists an inflammation of the pleura, there is found at the same time, a superficial pneumonia of the parts immediately adjacent, which probably gives rise to the cough, &c.; and on the other hand, a superficial pneumonia, if severe, is liable to inflame a portion of the pleura. We then rest in the deduction, that cephalalgia, delirium, and convulsions, are marks of a superficial inflammation of the brain, which very often is accompanied by arachnoiditis; while coma and palsy are proofs of the disease having reached the more deeply situated fibres of communication, and affected a greater amount of substance. If, then, in our use of the term arachnoiditis, we include a superficial inflammation of a portion of the convolutions, we shall find the following distinctive characters of partial encephalitis, apoplexy, and arachnoiditis, or, as it is frequently called for the sake of euphony, arachnitis, offered to us by M. Bouillaud. p. 298.

1. "Encephalitis, cerebritis, or inflammation of the brain. At first, a general or partial excitement of the sensitive, intellectual, and locomotive powers; afterwards, a sinking, a gradual diminution, and finally a complete loss of these same powers.

2. "Apoplexy, confining this term to hæmorrhagy of the brain. A sudden palsy, general or partial, of the sensitive, intellectual, and locomotive faculties, without any preliminary spasmodic symptoms." (The author

does not here mean to represent the coma as of slight importance, but as not essential to the definition.)

3. "Arachnitis. Excitement, and then palsy of the faculties already enumerated. These symptoms are the same which characterize a general and superficial phlegmasia of the cerebro-spinal nervous mass. Arachnitis and a general encephalitis are, therefore, confounded together in the symptomatology. The first cannot exist without the second; and the second seems equally incapable," continues M. Bouillaud, "of being produced originally and without being preceded by arachnitis. From this it results, that partial encephalitis may be distinguished from the inflammation of the arachnoid, by the circumstance, that the former only produces local symptoms, while the latter develops general ones; and that, in partial encephalitis, the local palsy which succeeds to the spasmodic state depends on the disorganization of a portion of the brain; while the general privation of strength which succeeds the agitation, in the cases of arachnitis, is the result of a compression or exhaustion of the nervous centres, but not of their disorganization."

M. Lallemand expresses in the following laconic manner, the broad strokes of distinction between these three affections.

"In inflammation of the arachnoid, *spasmodic symptoms without palsy;* in apoplexy, *sudden palsy without spasmodic symptoms;* in inflammation of the brain, *spasmodic symptoms, a slow and progressive palsy, and an unequal and intermittent progress.*"

Finally M. Bouillaud, who agrees with M. Georget so far as to be of opinion that a *general* arachnitis is the same thing with a general and superficial inflammation of the brain, conceives the true diagnosis to lie between these three affections; viz. 1. Partial Encephalitis; 2. Apoplexy; and 3. Arachnitis. He then sketches the following distinctive characters. In the first, spasmodic contractions, and subsequently a circumscribed, partial paralysis; in the second, a palsy as in the first, but a total absence of the spasmodic contractions which preceded it; and in the third, spasmodic contraction of all the system of locomotion, paroxysms resembling epilepsy, and afterwards coma, and a palsy of the whole body.

In the above comparisons, apoplexy is introduced on account of the resemblance of some of its symptoms; but there are considerable points of resemblance in what appears to be the essential character of these diseases. Apoplexy is always found accompanied by the *hæmorrhagic effort*, exhibiting symptoms having a close analogy to those of inflammation; and a part of its phenomena vary, even after the actual occurrence of effusion, in the manner in which inflammatory irritations are known to do. And on dissection, the sanguine deposite is found surrounded by a portion of brain, not only reddened by enlarged vessels, but softened, and tinged with blood, in the manner of the sanguineous softening, of which we have to speak. Frequently, also, numerous minute portions of blood are found effused within the softened and discoloured substance.

Softening of the brain, described by M. Rostan, and numerous other French writers, is an affection which seems to be very frequent. That it is so little understood among us, may arise from the infrequency with which we open the head. M. Lallemand, after a copious list of cases, occupies 18 pages in reviewing the arguments, which go far to prove that this change is produced by a true inflammation. He shows, p. 73, that

> "If you follow, by the aid of recorded facts, the different degrees of sanguine injection in the nervous system, starting from simple distension of the vessels, you will arrive at apoplectic effusions by transitions so insensible, that it will be impossible to find a line of demarcation at which to stop."

He shows that this softening is produced by causes which commonly occasion inflammation, such as wounds, concussions, and contusions of the brain, and the presence of foreign bodies in its substance; that it exists at the same time with inflammation of the meninges, shows itself, in succession, in company with vascular injection, infiltration of blood, and a mixture of small particles of pus, and finishes by transforming itself into an abscess filled with purulent matter, or with genuine pus; that it frequently exhibits at the same time, an exterior circle where the cerebral substance is red, a more internal stratum softened, another within that again, in which pus begins to appear, and in the centre a real abscess containing pus: finally, that softening of the brain displays, during life, symptoms, which are evidently inflammatory, are aggravated by stimulants, and are capable, in rare instances, of a cure by a regular antiphlogistic treatment. Softening, including a weakening of the tissue, is a common symptom in other parts of the body. Thus a change of this kind is regularly described by pathologists as occurring, with inflammatory symptoms, in the mucous membrane of the alimentary canal; and in the more common inflammations of that texture, we find its substance, as well as its cellular adhesions to the parts lying immediately below, so weakened, that the membrane tears off, upon the slightest cause, in long strips. All tissues, when inflamed, are more easily ruptured, though increased in density; and in the brain these changes are only more conspicuous from its peculiar texture and situation.

Softening of the brain is generally found more fully developed, in proportion as it is confined to a smaller space. We cannot conceive of a whole brain in a state of suppuration or softening; because before it could reach this height, such an affection must inevitably destroy the patient. Sometimes the brain is found yellowish or pale, and less coloured with blood-vessels than natural: and it is then commonly firmer than usual, the white substance having the appearance of gluten. In other instances, it seems infiltrated with serum; and is then less consistent than natural, although in a state which can be clearly distinguished from that softening, which it is our present object to describe. The latter then occurs in two varieties, which M. LALLEMAND considers as two degrees of the inflammatory condition. In one of them, the softened part is injected or infiltrated with blood: if it be cortical matter, (which is by far most frequently the case,) its colour is rosy red, or even brownish, either uniformly, or in different degrees in different parts; if, on the other hand, it be the medullary portion of the brain which is affected, its tinge is much less altered, sometimes scarcely at all. This discolouration in the softening, M. LALLEMAND refers to an infiltration of blood in the texture of the brain. In the other species of softening, pus is supposed to be intimately combined with the cerebral substance. The cortical matter is now found greyish, (?) yellowish, or greenish: the white portion is little altered in hue, as it naturally approaches that of healthy pus. It is, however, often yellowish or greenish. At a more advanced stage of the disease, pus is visibly seen in the texture of the brain, and, to use an expression of M. ROCHOUX, there seems to be a "sort of trituration of the cerebral matter with pus." Minute drops of pus are next encountered; and still later, numerous small abscesses, which frequently unite into a larger one, having ragged parietes, with the appearance of being torn. These two varieties of softening frequently exist at the same time; the part which is softened, greyish, and mixed with pus, being found in the centre of a mass, the outer portions of which are still injected with blood, and reddish, but less diffluent; the inflammation having evidently advanced farther in the centre than at the circumference. Sometimes numerous clots of blood, of the size of a pin's head, are dispersed through the softened portion; and real apoplexies, or hæmorrhages of the brain, are by no means an infrequent consequence.

Softening may occupy a very small space, a whole lobe, or even, it is said, a whole hemisphere. From the researches of M. Lallemand, it appears that this affection generally occurs in the same portions of the brain as true apoplexy. This anatomist found, among seventeen cases, eight in which it was confined to the corpora striata and thalami, seven where the surface of the convolutions was affected, one in the pons varolii, and one in the middle of a hemisphere. M. Rochoux, on the other hand, examined, with a view to this point, forty-one cases of apoplexy, twenty-seven of which were seated in the above-named great tubercles, and one, making twenty-eight, immediately beneath one of them; while of thirteen others, seven were found in the middle parts of the hemispheres, three in the posterior parts, two in the anterior, and one in the middle lobe. The greater preference of these diseases for the corpora striata and thalami, is accounted for by the great portion of cineritious matter which those parts contain. In the case of apoplexies, this peculiarity was observed by Morgagni.

It is highly probable that the dark brown colour and softened condition of brain affected with this disease, have sometimes led surgeons to mistake it for gangrene; while, on the other hand, the fetid smell which is described, sufficiently proves that in other cases the mortification was real.

We have thus far pursued the principle assumed by our authors, in which they both agree, and are followed by the great majority of the dissectors of Paris. We mean the belief that this affection is inflammatory. In this we have to encounter the authorities of M. Recamier, and M. Rostan. The first of these is " more than ever" convinced, that softening of the brain is an alteration sui generis, a peculiar degeneration, which may be compared to certain alterations of the spleen. He believes this morbid appearance to be independent of any inflammation; and to be produced by " a general cause, a disease of the whole economy, a fever of an *ataxic*, nervous, malignant, or pernicious character," which exerts its influence in the nervous system, and particularly in the brain, destroying and disorganizing its tissue. From this he draws the origin of "softening, degenerations, and ataxic focuses." [*foyers.*]

M. **Rostan**, on the other hand, considers this affection as "a destruction, a senile death of the part," a process similar to the gangrene of the feet of aged persons. This writer seems to have principally studied it in aged subjects, owing to the nature of his personal engagements. We have not space for a discussion of these points, as they would lead us from our present object.

Induration is described by M. **Bouillaud** as the first effect of general encephalitis. Dr. **Abercrombie** has described cases, in which a partial hardening seems to have been the consequence of a slow inflammatory action. Vide p. 123, in the present review.

Hydrocephalus, and the *serous apoplexy* of the older writers, and of M. **Serres**, are generally the consequences of inflammatory action. We have not space to consider them here. We have, however, already mentioned effusion under the arachnoidea as a symptom of what M. **Lallemand** calls arachnitis, and M. **Bouillaud**, general encephalitis.

Congestion of the brain. Apoplexy without rupture. Coup de sang. Stroke of the sun. This affection seems to bear nearly the same relation to encephalitis, that congestion does to inflammation in any other part of the body. It appears to consist in a rapid distension of the vessels of the head, bearing many analogies, certainly, to a phlegmasia. We have not space to pursue the parallel.

Fevers.—"All the world," to borrow a French idiom, at least in Paris, seems now to be thoroughly convinced, that a great number of fevers, so called, have been substantially, effectually, if not "essentially," inflammations of the brain and meninges. We cite, at once, Messrs. **Lallemand**, **Georget**, **Martinet**, **Coutanceau**, **Rullier**, and **Bricheteau**, and a minute's search might furnish us with the names of many more who entertain this opinion. The fevers, which, in France, have been styled *maligne*, *pernicieuse*, *adynamique*, *ataxo-adynamique*, and simply *ataxique*, which we translate, malignant, pernicious, (a term of pretty general applicability, one would think,) typhus mitior, typhus gravior, and irregular, or, indeed, unintelligible; all of these exhibit decided marks of cerebral disease in every instance, and mostly to be distinctly characterized as of the inflammatory kind.

Upon every gradation of opinion, which it has been found possible for human intellect to devise in relation to these doctrines, some physician has been found to take his post; which he in general maintains with equal resolution against those who are higher or lower on the ascent than himself. *Nihil esse—quod non dixerit aliquis philosophorum.* Some, though these seem really to be few in number, still maintain the old nosological, ontological, doctrine, that fever is an undefinable, indescribable agent, existing in the system generally, and *producing* these inflammations as a consequence. The other extreme consists in the uncompromising opinion, as inculcated by Dr. BROUSSAIS, that *all* fevers are gastro-enteritises, with or without the supervening complications of inflammation of the brain, or of any other organ; that, where the brain is unquestionably a source of irritation, this at the same time itself depends mainly on the gastro-enteritis for its support, and still continues to aggravate the irritation which was its own parent; whence the direction to apply leeches to the stomach in fevers, the principal phenomena of which are referrible to the head. Now, the impression that nearly all diseases are produced by derangement diverging from one or more central points, and consequently affecting the rest of the body, an opinion, which, when amplified, does not differ greatly from the Broussaian doctrine of irritation, may be said to characterize the modern French school of pathology. They first record the symptoms during life, and then examine the vitiated appearances after death; and, as all symptoms and morbid appearances are local, they are consequently led, very naturally, to consider disease as local also. They follow a principle of no ordinary weight, namely, one of NEWTON's rules of philosophizing, *to ascribe no other causes to phenomena than are known actually to exist.* Thus, the irritation of one organ produces irritation in another organ—perhaps in the heart, so as to give rise to the phenomena of fever; and it is not necessary to have recourse to a fever in the abstract, to stand as an occult cause, and generate the local symptoms, a supposition which, however venerable from the great names among its adherents, is entirely hypothetical and gratuitous.

Thus far these reasoners agree extremely well with the celebrated reformer; but we now come to the grounds of what may be denominated their *moderate opposition*. Seeing pain and other morbid symptoms in the head, and several other parts of the body, among the first phenomena of commencing fever, they discover no evidence that all this is secondary to a gastro-enteritis. In many instances the head and spine afford the only very important symptoms of inflammation, with the exception of the general sympathies of the circulation; and, they conclude, by a process of inference which we have already described, that the head or other part of the body is the principal source of the fever, which they therefore would style, in an unmixed case, an encephalitis. Still, the existence and importance of the malady of the head by no means preclude the subsequent or simultaneous production of a gastro-intestinal irritation.

It is believed that the encephalitis which gives rise to malignant or typhus fevers, is generally of the extensive and superficial kind, which it is so difficult to distinguish from arachnitis. Among the symptoms are the hebetude of the mind, the convulsive twitches of the tendons, the picking of the bed-clothes, the delirium, the cephalalgia, &c. &c.; and in many instances, particularly in children, convulsions of the more severe kind.

We have already mentioned that professor Lallemand entertains opinions similar to these. M. Bouillaud, on the other hand, is considered a pupil of M. Broussais, and can hardly be expected to array himself directly against his master. He maintains, on this point, a modest silence. Contented with pointing out and describing the affections of which he treats, he leaves it to the judgment of the practitioner to decide on their existence in the cases which come before him. It is undoubtedly natural to suppose, that the fact of having given his particular attention to the subject, would lead him to perceive their presence with more frequency than his predecessors; but we observe that his cases do not embrace the mildest forms of the disease, such as M. Broussais teaches to be merely symptomatic, and of little importance in comparison with the irritation of the primæ viæ, which he believes to constitute the disease. The four cases which he selects as examples of his simplest species of cephalic affection, exhibit, respectively, palsy and convulsions,—convulsions and sudden death,—palsy—and convulsions, among the symptoms. And these are all he gives us, for this purpose, among forty-five narratives; so that we cannot, from any thing in the present volume, infer that he differs from his preceptor.

Causes of Encephalitis.—Pressure on the head of the infant in labour, falls on the head, dentition, heat, the direct rays of the sun on the head, hypertrophy of the heart, concussions and wounds of the brain, the presence of foreign bodies, the respiration of deleterious gases, poisons taken into the stomach, including spirituous liquors, sudden changes from heat to cold, pain, prolonged wakefulness, prolonged study, fear, chagrin, muscular fatigue, the neuroses of the brain, (an ill-defined class, embracing, for example, both mania and hydrophobia,) all these are said to be such. M. GEORGET expresses doubts of this effect resulting, so frequently as supposed, from the suppression of discharges. Still-born children are sometimes found with marks of this disease; and Dr. ABERCROMBIE states, that, in convulsions from teething, a purulent exudation has been found in the pia mater. Males are more subject to it than females; and the aged are most of all liable to softening of the brain.

Symptoms.—Headach, irritability of the eyes and ears, then obtuseness of the same faculties, suspension of taste and smell, drowsiness, and yet incapability of sound sleep, delirium, more or less complete loss of intellect, spasmodic motions, convulsions in the muscles of the face, members, and trunk, tetanic rigidity or contractions of the same parts, contracted, or dilated and immoveable pupils, stitches and pains in the limbs, violent pain when the contracted limbs are extended or further bent by the assistants, weakness, prostration or palsy of a part or the whole of the system, insensibility of the skin, &c. &c. The irregular affections of the muscular system produce a host of peculiar symptoms; such as squinting, a permanent opening or closure of the eyes, fixedness or distorted rolling of the globe of the eye, a distorted countenance, fixed or changeable, trismus, or the falling of the lower jaw, difficulty, rapidity, or irregularity of breathing, dysphagia, retention of urine, involuntary ejection of urine and fæces, to which we will add costiveness. Vomiting may in some cases be owing to a convulsive action of the muscles. The heat of the surface is variable; sometimes suddenly shifting from an icy coldness to a violent burning, and vice versa, and sometimes unequally distributed over the body. A similar variety is seen in the expression of the face and eyes, which is sometimes frowning and animated, while at other moments it is entirely inexpressive. The tongue is successively moist and whitish, yellowish, brownish in the middle, and red at the edges, black and dry, cracked, pointed and hard: the lips and teeth are dry and fuliginous. The derangements of respiration and deglutition which we have enumerated, announce great danger. The genitals are sometimes excited, erected, or gangrenous: this announces, as M. SERRES has shown, a malady of the cerebellum. The pulse is strikingly variable; sometimes frequent, sometimes slow, unfrequent, and soft; at the commencement, often full, hard, and frequent; in the decline, generally small, frequent, irregular, and intermittent. ABERCROMBIE has seen it suddenly rise from 60 to 130, and then as suddenly sink again. M. LALLEMAND believes that the explanation of this is to be found in the circumstance, that the inflammation of the brain in reality does not affect the pulse at all; and that the derangements of the latter, are only owing to the sympathetic affections of other parts, or to accidental circumstances. A smell like that of the mouse has been observed in the decline of the disease. Eruptions are retarded or suppressed; wounds of the head become swelled, painful, flabby, and sanious; the pericranium separates itself from the adjoining bone; inflammations, including erysipelas, are suddenly produced, or suddenly cured around them. If the brain be uncovered, it protrudes, forming hernia cerebri. M. BROUSSAIS inculcates the opinion that a gastro-enteritis is produced consecutively in every instance. This the authors not of his peculiar school deny, but admit that it is so sometimes.

We have inflicted the above catalogue of symptoms on our readers, under a sense of its necessity; as, when discussions are afloat, as to the frequency of the occurrence of any disorder, it is of the first importance to define what different persons mean when speaking of it. We could furnish a separate list of prodromi, or precursory symptoms; but will spare, on this point, our readers' patience; merely remarking, that it is of the first importance to attend to slight and incipient marks of disease of the brain, as we shall have occasion to show, that this often constitutes all the difference between the possibility and impossibility of a cure.

We have not space for more detailed descriptions; and the above is sufficient to point out the class of symptoms to which are referred the *morbid appearances*, which it is our next province to describe. In discussing the inflammatory nature of *softening* of the brain, we have already given a sufficiently full account of this curious affection, to spare repetition. The *dura mater* is seldom injured but from fractures and concussions: in these instances it is found detached from the cranium at the points opposite to the injury, and covered with a thick or sanious pus. In apoplectic and other cases, where a general tendency of blood to the whole head obviously exists, the dura mater partakes in the consequences, and its vessels are found distended with blood. Vide M. ROCHOUX.

The læsions of the *arachnoid* itself, considered as a serous membrane, are, as we have already observed after M. GEORGET, much more rare than is supposed by many modern writers. This membrane sometimes contains, in the polished serous cavity between its *two* folds, a considerable quantity of watery fluid, while the membrane itself exhibits no decided marks of inflammation. This fluid is considered as the product of a mere exhalation. The arachnoid is rarely found to exhibit traces of inflammation throughout its whole extent; but, when a part of it becomes inflamed, it is injected, of a lively red colour, deprived of its polish, and studded with minute transparent granulations, which are only seen with facility by being held to the light, so as to make the membrane glisten. Over these is found a delicate coat of lymph, pus, or sero-purulent liquor. These are most frequently observed on the cerebral fold of the membrane. Frequently the coating can only be seen in the act of separating the two folds, by raising the dura mater, when it assumes a ropy appearance, but is in too small a quantity to be seen while lying on the membrane. The opacity of the arachnoid is never very considerable; and when it does exist, is frequently owing to the diseased condition of the cellular matter beneath it. In some cases, adhesions are found. Serous and purulent matters are frequently observed *under* the arachnoidea; but these, according to the principles we have assumed in a preceding page, are in the pia mater, not in the arachnoid. The same may be said of close adhesions between the arachnoid and brain. The arachnoid of the ventricles, when inflamed, becomes unequal and rugous, and furnishes a muddy sero-purulen fluid, like that produced by the pleura or peritoneum, under similar circumstances.

The *pia mater* is almost always changed in its appearance after inflammations of the brain. This is a necessary consequence of its office, which consists in conveying the blood-vessels over the surface, and allowing them to ramify. Its vessels are injected, and its cellular tissue frequently infiltrated with serum, and in some instances with blood. The serum, from its retention in the cellular texture, resembles a jelly in appearance; but the whole may escape through a single opening. In the same texture, are sometimes found small clots of blood, a dirty sero-purulent liquid, real pus, and, in some instances, a cheesy matter. In chronic disease, the membrane is liable to thicken; and it may become several lines in thickness. Adhesions of the pia mater to the brain, are by no means rare, and when raised, it is apt to tear off the cerebral surface, which is generally found softened at such points. It is more common to find the pia mater inflamed throughout its whole extent, than the arachnoidea.

On the morbid alterations of the brain itself, we have already anticipated a large share of what we might have deferred to this place. In general inflammation of the brain, the vessels are distended, the cineritious matter is rose-coloured or deep red, and the medullary, marbled or violet-coloured. When sliced in the ordinary manner, the inflamed brain presents a large number of minute, red points, which are the sections of capillary arteries and veins, and the appearance of which has given rise to the French expression, "sablée de sang," *sanded with blood.* In local encephalitis, of a higher grade than that we have just described, we at once encounter the appearances enumerated in that part of this review, which is devoted to *softening of the brain;* to which, therefore, the reader is referred.

Abscesses are not uncommon in the brain. The pus is often mixed with the cerebral matter, but, nevertheless, is more distinct than in the white softening described above. In other cases, in which the disease seems to be farther advanced, the pus is collected in a cavity; sometimes in several small ones. It is very often of the appearance which is called laudable; at other times, thin and fetid, or yellowish and serous. The parietes of the cavity, in the more recent cases, are ragged, and softened; but in more advanced abscesses, they are found lined with an albuminous coat, which subsequently becomes organized, and they are then said to be encysted. M. LALLEMAND devotes 200 pages respectively, to recent and to encysted abscesses.

The pia mater, and sometimes the arachnoid, occasionally form one of the parietes of a cerebral abscess. In numerous instances, many of which are collected by M. ITARD, abscesses of the brain have evacuated their contents by the ear; and at other times, by the nose, or orbit of the eye. Of course, in these cases, a caries or necrosis of the corresponding bone must have previously taken place. *Ulcerations* are not unfrequently found in the brain: they have been chiefly noticed in cases of sanguine apoplexy, and referred to the pressure of the blood; but they can exist independently of the agency of this cause, and are often distinctly referrible to inflammatory symptoms. They are observed most commonly in the corpora striata and thalami, and on the surface of the convolutions.

Hardening of the brain, as an effect of recent inflammation, we have already mentioned.

Induration from chronic disease is as yet not well understood. In hemiplegic idiots, one entire hemisphere is sometimes shrunk, hardened at the centre, and softened in many places. The parietes of old abscesses, and of apoplectic cavities, are not unfrequently increased in density. Sometimes there is an atrophy of several convolutions, with a yellowish tinge, and a remarkable increase of hardness. M. DELAYE, of the Salpetriere, has found, in the brains of those who had been for a long time affected with insanity, a portion of the cineritious matter easily divisible into two coats, of which the inner was softened, and the outer hardened. The younger PINEL has observed the medullary matter as hard as the white of a boiled egg, and sometimes of such a texture, as to produce a creaking sound when cut. He found no enlargement of vessels in the parts thus affected.

Cicatrices have been observed by M. SERRES, which, in his judgment, resulted from abscesses. They have been supposed by others to be the remains of apoplectic caverns, which are far more common. It is, in fact, very difficult for a patient to survive an encephalitis of sufficient duration to form a cicatrix.

Prognosis.—Encephalitis, as described by the writers from whom we have compiled the above details, is a very fatal, and almost hopeless disease. It produces most of the cases, which we commonly know under the character of incurable palsies, epilepsies, and dementiæ, or idiocies not congenital. In fact, it could hardly be otherwise, as all the descriptions are taken from mortal instances. Hence the great importance, to which we have already alluded, of watching, and early attending to, the first symptoms of the approach of these alarming disorders. It is highly probable, that, in the very numerous cases, in which a few of the milder symptoms among those enumerated, have occurred, there has really existed encephalitis of a moderate grade, and capable, as experience would then demonstrate, of being easily cured. The existence of mild attacks, and the approach of severe ones, may, we think, be easily recognized by a knowledge of the symptoms which we have already enumerated; and we have, therefore, spared our readers the tedium of a list of prodromi, which consist merely of the same phenomena, apparent in a less degree, or of certain general and familiar indications, which seem to portend disease of any kind within the cavity of the cranium.

If we apply this doctrine to fevers, according to the opinions avowed, in general terms, by the moderate school to which we have alluded, we shall find the prognosis vary indefinitely, from a mild fever with headach, to the most terrific and uncontrollable form. Here, indeed, our pathological friends appear to us somewhat defective. After first endeavouring to show that what is called fever is often really but an encephalitis, or some other affection of the brain, they content themselves with describing those more violent forms of cerebral disease, which furnish, by their very fatality, the means of dissections, and leave us to draw, in the best manner we are able, the corresponding inferences with respect to the more frequent and curable cases.

Recovery, in the severe cases, is often only partial; as great and peculiarly melancholy defects are very frequently visible in the understandings of those whose lives are saved from this distressing disease. The precious medulla of the brain has its powers but imperfectly restored by the cicatrices, and lateral anastomoses, which then form a part of its means of communication.

Treatment.—The celebrated BROUSSAIS, and his school, have taught us, that whatever form disease of the brain may assume, it is almost always in reality the same malady, to wit, irritation, and must be treated in the same manner. Without subscribing to this doctrine, we have thought, as is well expressed by M. GEORGET, that the diagnosis is often of but little value as regards the treatment. When severe symptoms of undue "determination of blood to the head" exist, every experienced practitioner will feel that the physician but badly fills his post, who waits for symptoms to declare to what nosological department the disorder is to be referred. The medical attendant is bound to act with decision and despatch, and leave diagnosis for leisure. It is only, then, for the purpose of predicting the future, that this study is valuable; nor is this unimportant. We have inserted in an earlier part of this review, what we had time and space sufficient to say further upon the means of distinguishing these diseases.

When once a disease is distinctly recognized as inflammatory, and there is no doubt or contraindication, its treatment generally becomes a thing extremely simple and intelligible. If we believe, however, that such an affection has been mistaken, in thousands of cases, for malignity, debility, a typhus tendency, ataxy, &c. &c., we may well suppose that errors, both numerous, and important in their injurious consequences, must have been the result. The collections of narratives by MM. ROCHOUX, LALLEMAND, PARENT, MARTINET, and BOUILLAUD, exhibit abundant evidence on this point. We there see the history of a great variety of cases of fatal encephalitis, which had been treated by tartar emetic, bark, camphor, musk, ether, &c. &c., and in which the symptoms are frequently recorded as having been exasperated immediately on the adoption of such practice. The more correct procedure is to be sought among a description of men, who have been long accustomed to rely upon the evidence of facts submitted to their senses, without recourse to arbitrary hypotheses, or mystical assumptions of occult causes. We allude here to the surgeons, by whom inflammation of the brain is distinctly recognized, when arising from accidents and operations, and effectually treated; and whose efforts, in many instances, have been crowned by the most extraordinary success. Their treatment consists simply in powerful depletion. Equal success does not seem to be obtained in the management of inflammations of the brain from other causes by any methodus medendi; and we have already stated that strongly marked local encephalitis is almost always fatal.

The best success (that is, where palsy, permanent contraction, and convulsions had come on) seems to have followed the use of free bleedings, and the application of leeches and ice to the head, of sinapisms to the feet, and of boiling water to the legs and thighs. We are here quoting, (as indeed we have almost exclusively done throughout this paper,) from the French alone; and we hear neither the praise nor blame of calomel. An English or American practitioner would know the value of this additional remedy; a remedy, concerning which it at least admits of a question, whether its possession does not exceed in value all that can be achieved by the utmost delicacy of Gallic diagnosis. Practical directions for the use of these means, and instructions under what circumstances to withhold them, are matters which we will not intrude upon the experienced practitioner; while to him whose eye is not familiar with disease, they would be insufficient. None, indeed, know better than our well informed countrymen, that it is impossible to make a physician by the aid of books alone.

B. H. C.

MEDICAL LITERATURE.

RETROSPECTIVE REVIEW.

Article XII.—*Medicina Gymnastica; or a Treatise concerning the Power of Exercise with respect to the Animal Economy; and the great necessity of it in the cure of Several Distempers.* By Francis Fuller, A. M. Sixth edition. London. 1728. pp. 271. 8vo.

It has sometimes been a matter of astonishment, that the ancients carried their fondness for gymnastic exercises to such an extent as is manifest, as well from their written works, which have come down to our times, as from the remains of the vast buildings, which may be regarded as monuments raised to gymnastic courage and skill.

No body supposes that the brilliant assemblages on the turf of New-Market, or Long-Island, are moved by the sole desire of perfecting, by their presence and patronage, the beauty, strength, and speed of that noble animal the horse; nor will any one believe, notwithstanding what has been said thereon, that the grave and magnificent exhibitions of the olympic games, were intended to augment the personal courage, and bodily strength, of the people of ancient Greece, irrespective of other considerations than the application of these qualities to the national defence. Iphitus, the founder or restorer of the games, probably cared less for the muscular development of some Crotonian Milo, or the blended triumph of victory and filial piety in the family of Diagoras the Rhodian, than for those higher and nobler political connexions which resulted from his extraordinary institution.

Though the design of Iphitus was to establish a neutral ground, on which the conflicting interests of Greece might be soberly discussed, yet, as the olive chaplet won in a contest which all Greece assembled to behold, would naturally stimulate many of her citizens to cultivate assiduously such qualities as might render a victory probable, or even possible, fashion would make popular all those physical exertions, the highest proficiency in which, gave not only something of sacredness to the character of the living victor, but insured a posthumous immortality.

Hence, in view merely of the distinction which awaited the olympic victor, we may cease to wonder at the general extension, among the ancients, of the gymnastic arts; or even to be astonished at the excess to which they were carried; at the enormous expenditnre incurred in erecting temples, baths, statues; the profligate waste of time; the barbarous immolations, whether of the ceastus and pancratium at first, or the more demoniacal butcheries of those ultra *amateurs du spectacle*, who seem to have conquered mankind, that they might offer up their blood in the arena, and to have sought out all savage, strange, and monstrous beasts, that they might glut an incomprehensible appetite for cruelty.

Such was the force of fashion, and so pervading the love of the gymnastic art, that, in the Augustan age, and downwards in the empire, almost all persons of fashion and rank seem to have subjected themselves to a most rigid observance of its rules.

> "Tout le monde," says LE CLERC, "etait si fort convaincu de l'utilité, qu'on en retiroit, ou du plaisir que cela faisoit, qu'il y avoit une infinité de gens qui passoient la plus grande partie de leur vie, dans les lieux propres pour s'exercer, qu'on batit depuis dans toutes les villes de la Grèce, d'où cette coutume se repandit ensuite ailleurs." Hist. de la Med. p. 108.

Probably a still greater attention was devoted to the subject in Rome. Independent of the rules which PLINY relates as being methodically followed by himself, and of the Sanctorian accuracy in regard to his health, told us of SPURINNA, we may satisfy ourselves as to the extent of the fashion, by reading what SENECA says in his fifteenth epistle.

> "Stulta enim est mi Lucili, et minime conveniens literato viro, occupatio exercendi lacertos, et dilatandi cervicem, ac latera firmandi; cum tibi fœliciter sagina cesserit, et thori creverent, nec eres unquam opimi bovis, nec pondus æquabis."

SENECA would not have given such advice, if the reproach had had no foundation in the common practice of the best classes of society, the literary men.

But, in thus alluding to the criminal excesses to which the gymnastic art was carried, and of which it was no more guilty, than christianity is guilty of the blood which has been shed under its name and authority, we would not excite feelings of abhorrence against the art itself. There is no doubt, that many of the wealthy and learned people of Rome promoted, in a high degree, both their corporeal and intellectual vigour, by attention to the bodily frame. The convenient and elegant porticoes and baths, the sunny exposures and shady retreats of Tusculum, must have sharpened the appetites as well as the wit of its polished inhabitants; and the truth is, that we are not more apt to look back to those times for examples of physical perfection, than for the best models of literary compositions, whether regarded in their aspect of solid worth, or elegance of style and finish.

How old is the adage, *mens sana in corpore sano*, and yet how common the idea that literary attainments are mostly found in the shrivelled pallid constructions of a VOLTAIRE and POPE, rather than in a plump rotund HORATIUS FLACCUS, or a portly GIBBON. We are far from believing that the gigantic strength of a Sampson, or Maximin, makes any probability of intellectual acuteness and vigour; but we do believe, that the healthy and normal state of the physical functions, concurs most fully with that intellectual strength and aptness, which is equally remote from feebleness on the one hand, and a morbid and factitious energy on the other.

A gradual declension of the popular attention to gymnastics, took place with the decline of the Roman empire. The ceastus and the net were supplanted by the lance and the battle-axe of the knight. The gymnasiarch gave place to the herald, whose listed field supplied the place of more costly structures. Tournaments and jousts were for men of gentle blood, and consequently not calculated to call forth, among the mass of the people, a disposition to cultivate the skill so admirably exhibited by their masters. These again gave way before the tremendous force of gunpowder, to which the hauberk and mail, the axe and spear, were worse than useless opponents. Thus has it happened, that an institution which occupied at one time a predominant influence over civilized society, fell gradually down; until in this enlightened age, mankind have learned to content themselves with the feats of the turf, the ring, and the circus.

We have said nothing of gymnastic medicine, and indeed we have little to say on the subject specially so considered. The name of HERODICUS, founder of the gymnastic sect, is known to us as that of a physician, who owned an academy where young persons repaired to exercise themselves. Observing that his pupils enjoyed very fine health and great bodily vigour, he conceived the idea of treating diseases by means of the bodily exertion of the patient, whereupon he formed a code of rules, adapted to different kinds of exercise, in different persons, diseases, climates, &c. He even attempted the cure of fevers, by causing his patients to exercise in walking, &c. To some he recommended a walk from Athens to Megara; where having touched the walls of the city, they were to turn and retrace their steps immediately; the whole distance being more than forty miles. The sect of HERODICUS continued to flourish many years after his death, and the remnants of its doctrines are occasionally visible to the present day, as for example in the present article, which it is desired might urge the subject upwards to the view of the profession, as worthy of being regarded as an important arm of the therapeutical power.

We are indebted to MERCURIALIS, for a most elaborate account* of all the gymnastic acts, contained in a small, but exceedingly dull quarto, not more than half of which could we ever bring ourselves to peruse. We mention it, however, as matter of reference.

We would not have it inferred, that no attention has been bestowed on this topic, since the days of ASCLEPIADES, by the medical profession; inasmuch as SYDENHAM, our FRANCIS FULLER, and CHEYNE, in England, and Dr. RUSH in this country, have urged the advantages of exercise with all the zeal of a true and fervent belief in its virtues. We ought not, in justice, to overlook the strong commendations of it, in Dr. JOHNSON's late publication on morbid sensibility of the stomach and bowels. It is certainly time that physicians should take heed to what these persons have said.

No doubt commonly exists as to the utter futility of the common in-door practice in pulmonary consumption. Under the idea that it must be treated by antiphlogistics, as if it were an acute inflammation, multitudes of victims have been suffered to perish, who, had they been constantly on horseback, might, as our

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* De Arte Gymnastica.

Francis Fuller expresseth it, have taken their lives as a prey. **Sydenham** asserts,

> "But the best remedy hitherto discovered in this case, is riding sufficiently long journies on horseback, provided this exercise be long enough continued: observing that the middle aged must persist in it much longer than children, or young persons. For, in reality, the Peruvian bark is not more certainly curative of an intermittent fever, than riding is of a consumption at this time of life."

So many examples are on record of persons who have escaped entirely, or at least for a long time, the usual slow and miserable death of the consumptive, by a careful adoption of rules of exercise, that it seems not a little surprising, we do not fly to it as a common remedy, whenever our patients can be persuaded to avail themselves of its hopes and promises.

We will take the liberty to quote in this place, the remarks made by Dr. **Rush** in the beginning of his valuable essay on consumption, even at the risk of being very common-place: they cannot be too much remembered and repeated.

> 1. "It is unknown among the Indians of North America. 2. It is scarcely known by those citizens of the United States who live in the first stages of civilized life. The principal occupations of the Indians consist in war, fishing, and hunting. Those of the first settlers are fishing and hunting, and the laborious employments of subduing the earth, cutting down forests, building a house and barn, and distant excursions in all kinds of weather, to mills and courts, all which tend to excite, and preserve in the system, something like the Indian vigour of constitution. 3. It is less common in country places than in cities, and increases in both, with intemperance and sedentary modes of life. 4. Ship and house-carpenters, smiths, and all those artificers whose business requires great exertions of strength in the open air, in all seasons of the year, are less subject to this disease than men who work under cover, and at occupations which do not require the constant action of their limbs. 5. Women, who sit more than men, and whose work is connected with less exertion, are most subject to the consumption."*

Dr. **Rush** concludes from the above, that the

> "Most probable means of curing the consumption, is to revive in the constitution, by means of exercise or labour, that vigour which belongs to the Indians, or to mankind in their first stage of civilization."

He cites many examples of *cures* effected by exercise, and of cases suspended by the same means; and it is within every body's knowledge, that the condition of the patient is generally meliorated, by abandoning an inactive mode of life. I visited a patient in the year 1817, who had just sustained a very large hæmorrhage from the lungs, which came on him when reduced to a debilitated state by cough, and sweats of long standing. He had every appearance of a man far gone in pulmonary consumption. He was a shoemaker. I told him, after the hæmorrhage had ceased, that as he was a young man, there was some hope of his restoration, provided he would adopt a different and active mode of life, one calculated to employ him much in the open air; but, that the pursuit of his present sedentary occupation, must preclude the hope of any complete restoration. He promised to follow my advice, although he had a small family, and knew not what resort to take immediately. I lost sight of him from that period, till the present spring, when I was stopped in the street by a cordial shake of the hand from a very robust, florid looking man, who soon explained that he was the same shoemaker whom I had last seen, weak and wan, and perishing, as I thought, with consumption. He informed me that he had immediately followed the advice I gave him, abandoned his last and bench, and engaged in a pursuit which kept him in the open air in all weathers: he had rapidly lost his cough, and suffered no other indisposition since. This case struck me as equally remarkable with that related to Dr. RUSH, by the venerable BENJAMIN FRANKLIN, see vol. II, p. 40 of his Inquiries; and I was not less pleased with the energy and determination of character, which caused this young man to abandon a calling in which he had been brought up and confirmed, than with the strong illustration which it afforded of the propriety of the active, and out-of-door method of controlling pulmonary consumption.

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* Rush's Inquiries, II. 57.

Patients generally, under circumstances like his, are unwilling to abandon old habits, or break up established connexions in business. Yet if the physician would be candid, and clear, in announcing his opinion, many such might, in all probability, be long preserved to their families, or wholly snatched from the jaws of imminent destruction.

Physicians err, we think, in being satisfied with the answer "I can't afford to go a journey, to buy a horse," &c. There are few decent persons, who, with a little additional exertion, would not be able to compass a tolerable hack, and travel very comfortably in the cheap and healthy districts of the United States, or at least to engage in some active, and out-of-door pursuit.

We have no fear of inculcating a doctrine of dangerous tendency, in recommending exercise. The profession is too enlightened to fall into the error of HERODICUS. No man will commend to his patient in fever, a walk as long as that from Athens to Megara, and back again; but it does not follow, that, because he who is labouring under an acute pneumonia, or inflammation of the liver, is better in bed than on horseback, we should carelessly, as I know we do, lose sight of the advantages which, in many diseased states, we can derive from a careful gymnastic prescription, under which, by the mere recuperative energies of the system, more good is sometimes effected, than by all the resources of a whole druggery.

FRANCIS FULLER, the author of the work under consideration, very justly remarks,

> "Internals do indeed make up the far greatest part of the means of cure, but yet there are considerable cases, where the very nature of the thing requires other methods; and this would appear very obvious, if it were not for our too partial consideration of the body of man, by attributing too much to the fluids, and too little to the solids; both of which, though they have a mutual dependence upon one another, yet have each of them, some properties, and if out of order, require something particular in the application, to restore them again."
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> "It is one thing to dispose nature to collect her own strength and throw off her enemy; and it is another to assist her by the *corpuscula*, the minute parts of a medicine, given inwards. The first way has regard to the whole animal economy; the second respects the blood and juices chiefly. The first may succeed where the second cannot; because here, the laws of motion, and the rules of the economy, are enforced, and brought to be assisting to a recovery of health, which in some few cases, can't be effected by a private and simple attempt upon the blood only." Preface.

Leaving out of the question, the humoral part of our author's pathology, the above cited passages contain very sensible remarks, which are capable of useful application in many circumstances.

Our author holds the following language in relation to the tone or tension of the parts.

> "That I may explain what I mean by this tension or tone, it will be necessary to consider, first, how great a benefit we daily receive by only

changing the position of our bodies from an horizontal to an erect position, when we quit our beds, where in the time of sleep the body has been relaxed; and this will appear best by the ill consequences which follow upon a person's being confined by an accident to keep his bed for a few days; for such a one always finds upon his getting up again, that his spirits are disordered; he finds himself vertiginous in some measure, and a great deal weaker than he was before he betook himself to that posture. From whence it evidently appears, that standing or sitting, the familiar exercises (if I may so call 'em) of the most sedentary life, are absolutely requisite to keep up the balance on the part of the solids, even in a state of health, and that more violent exercises are as requisite to recover this balance when sunk by sickness. I know it may be objected here, that this observation is chiefly owing to the custom of changing the posture of the body alternately, in such a space of time, and that the breaking of that custom occasions those disorders; but this will not suffice, for an erect position is essential to the well being of the body of man: and if the infant was not, at such an age, brought to it by degrees by the nurse, though it might grow to the bulk of a man, and live many years, yet it would be a kind of bedridden creature; paralytic as to the use of its limbs, though with the sense of feeling, and much weaker internally, for want of that advantage which the fluids receive from the solids by this most familiar degree of tension, which we experience in standing, which posture has ever been esteemed as a tonic motion." p. 27.

Without laying upon our readers the burthen of studying out FRANCIS FULLER's pathology of the animal spirits, which he seems to have comprehended quite as little, as the best of the physiologists of the present day, we shall proceed to select some passages that are characterized by a very good judgment, and close observation; which, as far as external or extrinsic changes in the system are concerned, the older writers made as well, or better, than the moderns, as any one may convince himself, by a very slight attention to the aphorisms or epidemics of HIPPOCRATES, or the treatise of CELSUS.

"How ridiculous would a man seem, who, when his physician had recommended some medicine to be taken to the quantity of a drachm, or of half a drachm, should go and take half an ounce of it, and then exclaim against the medicine that it disturbed him, and did him a great deal of mischief, and that he would never take it more; or if instead of taking it in a moderate quantity twice in a day for a considerable time, he should take that moderate quantity but once in two or three days, and then exclaim that the medicine was ineffectual? He that should act thus, would be thought to be but a very unreasonable person; and yet, after this manner most sick people set upon the use of exercise. You shall have a man ride fifteen or twenty miles, when he should ride seven or eight, come home very tired, resolve never to be served so again, and so perfectly lay aside all hopes of any good from the more moderate use of that exercise. Another shall ride out five or six miles, once in two or three days, finds no great matter of relief, despairs of any success from that course, thinks it a trivial thing, a mere phancy, when the physician does not know what to do, and so he wholly leaves off too. Now allowing that moderate exercise to be a medium for the recovering of our health, that is a very unfair way of making use of it; for when once a distemper will not be driven out by any rough means, by purging and vomits, but we are obliged to come to alterative physic, the work must go on gradually, and that physic must be used without intermission. Now it would be as ridiculous for a man to expect that gentle drugs, or gentle means, should alter his constitution, if taken with great intervals, as it would be for a man to expect that the bulk of his body should keep up or increase, though he eat but once in two or three days; and whatever regard is due to internal alterative physic, the same is due to the moderate use of exercise; for by it, the secretions are equally promoted, and the subject matter of the disease brought to despume slowly. It is highly necessary that these means should be closely repeated with moderation, that nature may not be confounded and weakened, instead of being relieved; and without any regular intermission, lest the spring should run down again, lest the disease should have time to ruin, faster than the means of cure can build up." p. 47.

The author proceeds, at page 65, to treat of consumption; and here again we shall omit to go over some of his prefatory remarks on the pathology of this great scourge. There is something in the following quaint passage, which, however generally the sentiments contained in it may be known and admitted, will, nevertheless, be perused with pleasure and profit. Speaking of the use of balsamics, as applied to the management of consumption, he says,

"I could wish it was all hypothesis and fiction, and that these medicines would perform all that is expected from them; but then, to what must we attribute the ravages this disease (consumption) makes, which is known to all to be a melancholy truth? Not to the want of balsamics certainly, for both poor and rich can make shift to procure enough of them. The lozenge and linctus are in every body's hand; but this must be attributed to their leading people to take a wrong aim, to level at the symptom instead of the disease. These specious medicines induce them to be intent on the cure of that which is most troublesome, viz. the cough, when they should lay the axe to the root of the tree, be more intent on the cure of the habit of body, and not let it be overrun with a poisonous acrimony. I am confident, legions of the dead might have been above ground, if they had but conceived the fallacy of these means: if they had but stuck close to the proper quantities of any one good alterative, they might have plunged out of their several maladies; but by placing all their hopes in things directed to the cough, they have failed like the dog, which bites at the stone that is thrown at him, instead of biting him which threw it; not knowing that such diligent plying of these medicines is a kind of embalming a man before his death, and an ill boding presage, that in a little time he will be in a condition to be embalmed after it." p. 79.

And is it not true to this day, that physicians are directing their efforts, (if they may be called efforts, which we make in the treatment of consumption,) to the suppression of the cough mainly? or if we may be said to do any thing more, that is attempted, with the certainty that it will prove unavailing, if the disease have already fastened itself on the vitals of the patient. We might ask, indeed, of what avail is the whole apparatus of drugs, of diet, and flannel, which is generally arrayed, as if past experience had afforded any guarantee of its utility. The answer is, none at all. Hence, our author, after a long relation of the effects of coltsfoot, cynogloss, and liquorice, looks on such remedies as unfit to be trusted alone.

"Thus I have run up these arguments to a head. I have shown that the medicines appropriated to this case, ought to be very mild and temperate: upon the account of that less prevalent quality, there may be hazard lest they should not always prove equally effectual; and, therefore, to supply any such defect, I substitute a most easy natural gymnastic course, as a common aid to the weakness of the medicines, and an assistance to that part of the economy which those medicines cannot reach."

Riding on horseback, which was so much the favourite remedy of SYDENHAM, seems to be the exercise most approved by our author; and he closes the article on consumption, by referring to the use of horseback exercise, as follows:

"I might now proceed farther to consider in what degree of this distemper riding will be beneficial—whether any thing is to be expected from it in the second and last stage of it; but this would be to run out beyond my design of brevity: only, I shall take notice, that it is no rare thing to meet consumptions without any putrid fever, or any reason to believe an ulcer in the lungs, or perhaps so much as tubercles; but a continual hectic, and a precipitate waste of nature, by the direful acrimony and ill quality of the serum. In this case I cannot but be of opinion, that riding, well managed, would be serviceable, though undertook very late, if there is any tolerable measure of strength left to put it in practice."

"I must here again repeat, that when I shall speak of riding, I understand the habit of riding; the want of which distinctions has made it ineffectual to many a man. He that in this distemper, above all others, rides for his health, must be like a Tartar, always on horseback; and then, from a weak condition he may come to the strength of a Tartar. He that would have his life for a prey, must hunt after it; and when once he finds his enemy give way, he must not leave off, but follow his blow, till he subdue him beyond a possibility of a return. He that carries this resolution with him, will, I doubt not, experience the happy effects of the good old direction, *Recipe Caballum:* he will find that the English pad is the most noble medium to be made use of for a recovery from a distemper, which we in this nation have but too much reason by way of eminence to style *English.*"

The power of exercise in bringing the human system to the highest pitch of strength and activity, has been often manifested in the training of the Athletæ of Great Britain, whether pedestrian or pugilist. The rules of the renowned Captain BARCLAY are thus stated in the Boxiana.

"The pedestrian, who may be supposed in tolerable condition, enters upon his training with a regular course of physic, which consists of three doses. Glauber's salts are generally preferred; and from one ounce and a half to two ounces are taken each time, with an interval of four days between each dose. After having gone through the course of physic, he commences his regular exercise, which is gradually increased as he proceeds in the training.

"When the object in view is the accomplishment of a pedestrian match, his regular exercise may be from twenty to twenty-four miles a day. He must rise at five in the morning, run half a mile at the top of his speed up hill; and then walk six miles at a moderate pace, coming in about seven to breakfast, which should consist of beef-steaks or mutton-chops under-done, with stale bread and old beer. After breakfast, he must again walk six miles at a moderate pace; and at twelve lie down in bed without his clothes for half an hour. On getting up, he must walk four miles, and return by four to dinner, which should also be beef-steaks or mutton-chops, with bread and beer as at breakfast. Immediately after dinner, he must resume his exercise, by running half a mile at the top of his speed, and walking six miles at a moderate pace. He takes no more exercise for that day, but retires to bed about eight, and next morning proceeds in the same manner.

"After having gone on in this regular course for three or four weeks, the *pedestrian* must take a four mile sweat, which is produced by running four miles, in flannel, at the top of his speed. Immediately on returning, a *hot liquor* is prescribed, in order to promote the perspiration, of which he must drink one English pint. It is termed the sweating liquor, and is composed of the following ingredients, viz: one ounce of caraway seed; half an ounce of coriander seed; one ounce of root liquorice; and half an ounce of sugar-candy; mixed with two bottles of cider, and boiled down to one-half. He is then put to bed in his flannels, and being covered with six or eight pairs of blankets, and a feather bed, must remain in this state from twenty-five to thirty minutes, when he is taken out and rubbed perfectly dry. Being then well wrapt in his great coat, he walks out gently for two miles, and returns to breakfast; which, on such occasions, should consist of a roasted fowl. He afterwards proceeds with his usual exercise. These sweats are continued weekly, till within a few days of the performance of the match; or, in other words, he must undergo three or four of these operations. If the stomach of the pedestrian be foul, an emetic or two must be given, about a week before the conclusion of the training, and he is now supposed to be in the highest condition. Besides his usual or regular exercise, a person under training ought to employ himself, in the intervals, in every kind of exertion which tends to activity, such as cricket, bowls, throwing quoits, &c.; so that, during the whole day, both body and mind may be constantly occupied."

See also how a corpulent, pursy, thick winded animal, may be made to present in three months only, the tremendous strength, activity, and even composed courage of the far famed Tom Cribb; whose very aspect as he mounted the stage for the battle, caused Molineux's heart to sink within him. He was trained at Ury, by Capt. Barclay, after the following manner:

"The champion arrived at Ury, on the 7th of July of that year. He weighed sixteen stone; and from his mode of living in London, and the confinement of a crowded city, he had become corpulent, big-bellied, full of gross humours, and short breathed; and it was with difficulty he could walk ten miles. He first went through a course of physic, which consisted of three doses. For two weeks he walked about as he pleased; and generally traversed the woods and plantations with a fowling-piece in his hand. The *reports* of his musket resounded every where through the groves and the hollows of that delightful place, to the great *terror* of the magpies and wood-pigeons.

"After amusing himself in this way for about a fortnight, he then commenced his regular walking exercise, which at first was about ten or twelve miles a day. It was soon after increased to eighteen or twenty; and he ran regularly, morning and evening, a quarter of a mile at the top of his speed. In consequence of his physic and exercise, his weight was reduced, in the course of five weeks, from sixteen stone to fourteen and nine pounds. At this period he commenced his *sweats*, and took three during the month he remained at Ury afterwards; and his weight was gradually reduced to thirteen stone and five pounds, which was ascertained to be his *pitch* of condition, *as he could not reduce farther without weakening*.

"During the course of his training, the champion went twice to the Highlands, and took strong exercise. He walked to Mar Lodge, which is about

> sixty miles distant from Ury, where he arrived to dinner on the second day; being now able to do thirty miles a day with ease, and probably he could have walked twice as far, if it had been necessary. He remained in the Highlands about a week each time, and amused himself with shooting. The principal advantage which he derived from these expeditions, was the severe exercise he was obliged to undergo in following Captain Barclay. He improved more in his strength and wind, by his journey to the Highlands, than by any other part of the training process. His diet and drink were the same as used in the pedestrian regimen; and, in other respects, the rules previously laid down were generally applied to him. That he was brought to the ultimate *pitch* of condition was evident, from the high state of health and strength in which he appeared, when he mounted the stage to contend with Molineux; who has since confessed, that when he saw his fine condition, he totally despaired of gaining the battle.
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> "Cribb was altogether about eleven weeks under training; but he remained only nine weeks at Ury. Besides his regular exercise, he was occasionally employed in sparring at Stonehaven, where he gave lessons in the pugilistic art. He was not allowed much rest, but was constantly occupied in some active employment. He enjoyed good spirits, being all the time fully convinced that he would beat his antagonist. He was managed, however, with great address; and the result corresponded with the wishes of his friends."
>
> Boxiana.

We conceive that there is no necessity for us to offer an apology for citing Cribb's training, in an article on exercise. Indeed, it contains such a fine exemplification of the power of exercise over the body, as to commend itself at once to our readers.

The next subject is dropsy; of which we do not intend to transfer much to our pages, as well on account of the long and erroneous pathological discussions in the article, as of the general inapplicability of exercise to the removal of that disease, notwithstanding what Fuller says in its favour. He uses much ingenuity in dissuading from the employment of purging medicines, to the exclusion of diuretics.

> "There are none," says he, "will deny but diuretics are the most proper and natural remedies in this case, if they would always succeed, because directed to the proper emunctory the kidneys; and because they can go hand in hand with the corroborative medicines to be given at the same time. I take it for granted, therefore, that whenever purgatives are use in this case, it is because the diuretics do not take quick enough," &c. &c.

Again,

> "The ill success of our diuretic method in this distemper, is very much owing to our giving these medicines in so small a quantity, and to our not

changing them for some of a quite different nature: when one sort used pertinaciously does not take, that the quantity must be increased, there needs no better argument than what is brought for the use of the purgers; for if the blood can dispense with the particles of a purgative, it will certainly bear a great quantity of those which are diuretics only. What wonders has that golden remedy of PYTHAGORAS done, the acetum scilliticum, when given to a proper quantity? and what may not be expected from the sal succini, which may be given in a dose large enough to irritate the fibres of the stomach; and in some measure supply the place of a gentle purge?" &c.

Our author also gives us an article on the hypochondriacal distemper, of which there are several sorts. We shall not, however, quote any of his remarks on this subject, but proceed to his article "Of the exercise of Riding."

"Upon several accounts," says he, "this may be esteemed the best and noblest of all exercises for a sick person, whether we consider it with respect to the body or mind. If we inquire after what manner it affects the body, we shall find that it is a kind of mixed exercise, partly active, and partly passive; the lower parts of the body being in some measure employed, while the upper parts are almost remiss or relaxed. Nay, where a man is easy, is sure of his horse, and rides loose, there is but very little action on his part; but he may give himself to be as careless, almost, as if he were on a moving chair, so that he may be said to be exercised, rather than to exercise himself; which makes the case widely different from almost all other sorts of exercise, as walking, running, stooping, or the like; all which require some labour, and consequently more strength for their performance; in all which the muscular parts must be put to some stress, and some of the secretory vessels be made to throw off too much, while others throw off too little: whereas in riding, the parts being incomparably more relaxed, there is a better disposition towards an equal secretion of the morbific particles, and a less expense of the animal spirits, the chief agents in all irregular secretions; so that a sick person may by this means be greatly relieved, and not tired; whereas by other more violent ones, it is possible he may be tired, and not relieved." p. 149.

"What relates to the breast I have had occasion to explain before; and for the head, though I cannot say it is so immediately affected by this exercise, as the lower belly is, yet there is one benefit accrues to it from riding, which, by reason of the disuse of exercise in cases of sickness, is not taken notice of; and it is this, the great inclination to sleep which a sick man finds if he lies down upon his bed as soon as he comes off his horse. For, as the motion of a coach does more or less dispose all people to sleep, and the swifter it goes, the more we are inclined to dose; so the motion of a horse being swifter, and the posture relaxed as to the head and upper parts, though a man does not perceive any thing of such an inclination while he is riding and upon his guard, without any thing to lean upon, yet there is so much of the impression of that motion remaining upon him for sometime after he lights off his horse, that if he throws himself presently upon his bed, especially if he drinks some small draught of wholesome ale or wine first, he will quickly be in a sleep, which upon several accounts must then be very beneficial. This is a truth so certain and so valuable to distressed infirm people, whose nights are often more troublesome than the days; that it is wonderful what should keep men from attending to nature, and falling into such just measures that art itself cannot afford. What can be more applicable to all the circumstances of consumptive people, than after that by moderate riding they have disposed the humours for each secretion, they should by such short and refreshing sleeps complete those secretions? When moreover by these means they may be enabled to deny themselves those latter or morning sleeps, in which they are so apt to run into colliquations?" p. 158.

With equal zeal does our author praise and magnify the effects produced on the skin, and the capillary circulation in general, as shown in the

"Freshness of the countenance of those who use it, which lasts for some time, and will appear upon but once riding, and the weakest and most infirm person shall discover something of this in his cheeks after this exercise. Now I would fain know what noble cordial, whether solid or liquid, can do this? They may cause a flushing, but can produce nothing of this natural aspect; and what can more plainly discover to us that there is something inimitable, which results from the equal and gentle pressure of the innumerable and invisible vascula of the whole body together; and that that action which can produce such an appearance upon but one single application to it, may be sufficient to display the greatest and most wholesome effects, when continued on gradually, as it ought to be, &c."

Take also as a specimen of FULLER's love for the horse, the following part of a passage:

"He who designs to make his riding turn to account, must make it a pleasure. He must retire to some place where he can have the open field for his range; he must find out a horse that entirely suits his humour, and then it will not be easy for him not to delight in a creature, which will perform all he expects from him, that takes pleasure in what he is put upon, and delights in his rider; a creature which (considering the many other beasts that are serviceable for draught or burden) seems to be made almost only for the defence, the pleasure, and health of his master; and which has so many excellent qualities above all other beasts, that there is no man upon earth, whose gravity or dignity is so great as not to allow him with some pleasure to take notice of them, if the exercise alone will not satisfy, &c. &c."

The succeeding pages are mostly occupied with cases, exemplifying the beneficial effects of riding, walking, and other exercise, &c., in diarrhœa, colic, consumption, &c. We shall not follow him through these cases, though they are very instructive and well told. He commences at page 196, his observations on chafing, and at page 209, the remarks "on being exercised to bear cold," followed, at 219, by a sketch of the "practice of the ancients," in which, after a glance at their various modes of proceeding, and the abolition of gymnastic arts in Europe, which he attributes to the Goths, he says,

> "I am very sensible how difficult a thing it is with the best of arguments, to influence those who are propense to the contrary of what you propose. And we are so habituated to other methods and other expectations; have so many conveniences for support and palliation under a sickness, that most people are supinely content, rather to rub on in a sickly condition, that does not carry the greatest danger with it, than resolutely endeavour by vigorous means, to be quite delivered from it. And if it be a distemper that threatens immediate peril, these means are presently thought too trivial to have any weight in the cure, and people can with more ease despair of help, than struggle with pain, in hope of an uncertain cure; so that in some cases, it may be very well said of the wise, the rich, the valiant, and the mighty, as was formerly said of one of king David's generals, who, because he was killed upon a surprise, (which yet no human caution can always prevent,) was lamented with that severe *epicedium, died Abner as a fool dieth.*"

The volume is closed by an appendix containing a full and highly interesting detail of the recovery of the author, from a very long and distressing indisposition, by the use of exercise. This we shall not quote, on account of its too great length. In bringing this article to a conclusion, we must again express our regret, that modern manners and customs have retained so little of that habitual attention to cultivate, by exercise, the health and perfection of the body.

In Germany and in England, much attention is now paid to the subject in schools, and it is not wholly without friends in the United States; since, at least, two very considerable establishments are now in the practice of a regulated and prescribed gymnastic instruction.

We all know what vast speed may be produced in the horse by constant attention to exercise and feeding, and we may infer that men of feeble and delicate constitutions, might also be brought, by well directed means, to the attainment of great, or at least sufficient bodily health and vigour. Sir JOHN MALCOLM relates in the 1st vol. of his History of Persia, the following anecdote, which may not be malapropos to the matter in hand.

"Baharam, proud of his excellence as an archer, wished to exhibit before one of his favourite ladies. He carried her to the plain, and an antelope was soon found, asleep. The monarch shot an arrow with such precision, as to graze its ear. The animal awoke, and put his hind hoof to the ear to strike off the fly, by which he conceived himself annoyed. Another arrow from the royal bow, fixed his hoof to his horn. The exulting Baharam turned to the lady, in expectation of her warm praises; she coolly observed, *Neeko kurden z pur kurden est;* that is, 'practice makes perfect.' Enraged at this uncourtly observation, the king instantly ordered her to be sent into the mountains to perish. Her life was saved by the mercy of a minister, who allowed her to retire to a small village on the side of a hill. She there lodged in an upper room, to which she ascended by twenty steps. Immediately after her arrival, she bought a small calf, which she regularly carried up and down the flight every day. This exercise she continued four years; and the improvement of her strength kept pace with the increasing weight of the animal. Baharam, who had supposed his favourite dead, happened, after a fatiguing chase, to stop one evening at this village. He saw a young woman carrying a large cow up a flight of twenty steps. He was astonished, and sent to inquire, how strength so extraordinary had been acquired by a person of so apparently delicate a form. The lady said, she would communicate her secret to none but Baharam, and to him only, on condition of his coming alone to her house. The monarch instantly went; and on his repeating his admiration at what he had seen, she bid him not lavish praises where they were not due: 'practice makes perfect,' said the lady in her natural voice, and at the same time lifted her veil. The monarch recognized and embraced his favourite." p. 119.

BIBLIOGRAPHICAL NOTICES.

Article XIII.—*De la Saignée et du Kinkina dans le Traitement de la Fievre Jaune.* Par Pierre Lefort, Médecin du Roi. "Quam sit dispar exitus." Martinique, 1826, pp. 67.

Dr. Lefort is already advantageously known to the medical world, by his essay on the causes and nature of yellow fever, and the experiments performed on himself and friends, to disprove the belief in the contagious character of that disease. On the present occasion he investigates the comparative merits of two very opposite methods of treating the yellow fever, viz. by the administration of Peruvian bark, and by bleeding; and as the result of his reasonings *a priori* from the symptoms of the malady, and of observations on the changes found after death, as well as of his own experience, he is led to give a decided preference to direct depletion in the first stage, and revulsion in the second, over the stimulating and tonic practice.

The greater part of his pamphlet is taken up with critical remarks on the opinions of M. Guyon, who seems to have written with the two-fold view of bringing the new or physiological school of physicians into disrepute, and of sounding the praises of the bark, given alone or combined with opium. This gentleman furnishes us, as a contrast no doubt to the obscurities of the organists or physiologists, with a poetical exposition of the nature of yellow fever. He represents it as a being *separated* from matter, as an *evil* spirit diffused through the system, without affecting any organ in particular: it is, according to him, a malignant fever, which has its seat nowhere: it is an alteration, a profound injury of the vital principle, of the power which presides over life. Many physicians have been most excellent and captivating poets, and we see no objection to the members of our profession occasionally wooing the muses; but we must at the same time insist on a frank acknowledgment of their purpose, and on their affixing the true title to their works; so that we shall not have inflicted on us the prodigal use of the prosopopœia in what is professedly the history of a disease. On this ground we join Dr. Lefort, in objecting to the figurative strains of M. Guyon, or of any other medical man, who shall describe a fever as if a spectre, known only by its shadowy outlines, and made to represent whatever ear or fancy may suggest. The following conjecture is not less exceptionable: Perhaps, says M Guyon, our expectations of the method of treatment, best adapted to yellow fever, must be realized less by extensive knowledge than great *temerity*. This is, indeed, as our author remarks a justification of the satire on the physician, who is represented as blindfold, and striking at random, without knowing whether he shall drive away the disease or kill the patient. "There is not, there cannot be successful rashness in medicine, unless by chance, and as exceptions."

Confounding the fevers of a periodical character with yellow fever, the stimuli—bark, wine, punch, useful in many cases of the former, are extolled as efficacious in the latter. Hence, M. Guyon tells us, that generous wines, administered to the extent of producing a certain degree of intoxication, act in the same way as opium, that is, by retarding the progress of the disease. Nature and the patient are here opposed to false theory. Persons attacked with yellow fever, have an extreme aversion to all kinds of wine. So general is this feeling, that out of thousands of soldiers treated for the disease, during the period of eight years at the hospital of Fort Royal, the author has met with hardly twenty exceptions. Opium, according to the physician who advocates the use of wine, retards the progress of the disease by blunting the sensibility; and hence may, he thinks, be advantageously united to other means. On the other hand, we learn, that neither alone, nor in union with calomel, as recommended by the English practitioners, was it productive of any benefit in the hands of Dr. Lefort, who adds, that a suitable and continued use of the antiphlogistic remedies much more certainly removed wakefulness, by calming the irritation and pain of which it is the effect. We wish this remark to be steadily borne in mind by our medical brethren of the United States, when they are called upon to procure sleep and repose in autumnal fevers, marked by much gastric and cerebral excitement.

The cold bath, recommended by M. Guyon as a means of abstracting the morbid heat in the disease under consideration, is not approved of by our author, who expresses his partiality for tepid bathing and ablution, as a practice which, under such circumstances, he has found very beneficial.

In reply to the objections made against bloodletting, on the score of its having no direct or certain tendency to save life, but, on the contrary, of its retarding convalescence and accelerating the termination of fatal cases, Dr. Lefort makes the following very apposite remarks:

"But those physicians who have invariably considered bleeding necessary for the treatment of yellow fever, have not been at sufficient pains to determine the time in which it ought to be performed in order to be useful, and the limits beyond which it may prove injurious. It is to this neglect unquestionably, that we must attribute the want of success from this grand agent in a number of cases, and for the same cause, and owing to lack of discernment, do we find it taxed with hastening the fatal termination of the disease.

Dr. Rochoux, who was sensible of the indispensable necessity of vene section in the treatment of yellow fever, is, as far as we know, the first who has designated with precision the period of time in which we may have re course to the operation. This, according to him, is during the first sixty hours of the disease; and this time elapsed, it is too late to resort to general bleeding."

As corroborative of the correctness of this opinion, our author gives an extract from a letter written by him to Dr. KERAUDREN, in September, 1818, three years before the publication by Dr. ROCHOUX, entitled *Recherches sur la Fievre Jaune.*

"If I was able to bleed immediately after the accession, once, twice, and even three times, four out of five patients recovered; the disease was at its crisis on the second or third day, and convalescence, which was never long, began on the fourth or fifth. Bleeding, practised on the day after the invasion, presents six times less chance of success; and in general, it is too late to have recourse to it on the third and fourth day."

Eight years of practice and experience, continues the author, have continually confirmed the truth of this observation; and this truth is now fully evident to us, and will hereafter become so to the young physicians who shall be required to treat yellow fever, and who will not bring with them any prejudices in the study of the disease.

There is always an exuberance of life in those attacked by yellow fever, on their arrival in the colonies and a short time afterwards. Their blood is thick, and rich in colouring matter and fibrin, and without serosity. The coagulum is moulded after the form of the vessel in which the blood is drawn, and adheres strongly to it: in appearance it resembles a piece of *scarlet* ice. Those who sink under the disease in a few days, have the flesh firm and red, and *never* exhibit any sign of putrefaction, or taint; and never exhale, even a long time after death, any kind of bad smell. From these we must except the rarer cases, in which the disease lingers on two, three, and even five weeks; then the corpse is speedily decomposed.

The languor and prostration manifested at times from the very commencement of an attack of yellow fever, are *always* the effect of the pain and irritation of one or several viscera, and not of a real debility of the system generally. How can we in reason suppose such weakness in men, who, but a few minutes before, were in the enjoyment of all their strength and vital energies? The physiological analysis of the functions, and even the prompt relief instantaneously procured by large bleedings, cannot leave any doubt on this head.

M. GUYON is compelled to admit the fact, that bleeding "*calms the symptoms which constitute the first stage of yellow fever:* that is to say, it calms the pain and irritation which are at this time the symptoms. Now, to quiet the pain and irritation, is to husband the strength of the patient; since great or long continued pain and irritation have the assured effect of exhausting and destroying his strength. Hence, the sick who were overpowered by the excess of pain and extreme languor on the first invasion of the disease, felt themselves light and active after a more or less abundant sanguineous evacuation. To diminish action, when in excess and deranging the order of the functions, is not then lessening life; but, on the contrary, economizing it by removing an obstacle, which, allowed to remain, would finally extinguish it.

But, besides this, it is not by studying strength and feebleness in a general manner, as *two beings* equally diffused through the animal economy, and dividing between them all diseases, that we can flatter ourselves with being able to treat them in a suitable manner. There is something else in disease; there is an aberration, fixation, concentration of the powers on one or several organs, to the detriment of the other parts of the body: this is more especially the case in yellow fever, as we discover by the autopsia of those who sink under it. Hence the necessity of recourse to revulsives and derivatives, which, next to bleeding, are the most powerful means of combating the yellow fever." p. 40—2.

Under the head of revulsives, Dr. LEFORT first indicates dry cupping and blisters to the epigastrium, and vesicating or ammoniacal plasters to the thighs, legs, and *nucha*, to be had recourse to at the expiration of the first, and during the second period. In the comatose state, the actual cautery, either to the *nucha* or *sinciput*, or to both, is recommended. The most alarming symptom in this second period, when the pulse is small and fluttering, and without there being any heat or pain, is the vomiting of even the blandest drinks. Here the quinine, (he means the sulphate of quinine,) is extolled by our author as a remedy every way entitled to consideration; and one to which he is indebted for many cures: he gave it in doses of from two to three grains, three or four times during the twenty-four hours. Its use ought to be persevered in for two or three days. As a useful auxiliary to, or alternating with the quinine, he recommends the carbonated water in doses of two or three ounces, repeated every two or three hours, either alone or with syrup. The use of frictions is much insisted on during the whole course of the disease; either of the entire body with lemon juice, or of the pained limbs by a saponaceous opiate liniment. Cupping and scarifying, or the ammoniacal plaster, are especially useful in removing the pains of the lumbar regions.

Our author mentions, in a letter to his friend DUVEAU detailing his method of treatment, that he saves about two-thirds of those attacked with yellow fever; and adds, that, if called in time, that is at the invasion of the disease, he could cure five-sixths of the entire number. DUVEAU, in a letter to him, states the mortality in his practice to be one in five; that is to say, out of one hundred and ten military attacked with yellow fever, *twenty* died. The opinions and practice of such physicians are worthy of our attentive and respectful consideration, even though they may not be received throughout as models for adoption and imitation.

Article XIV.—*Exposé des divers procédés employés jusqu'a ce jour pour guerir de la Pierre, sans avoir recours a l'opération de la Taille.* Par J. Leroy, (d'Etiolle) D. M. 8vo. pp. 232. Paris, 1825.

A History of the various Methods hitherto employed for the cure of Calculus, without resorting to Lithotomy. By J. Leroy, 1825.

The chief design of the author of this work is to vindicate his own right of priority in suggesting the idea of breaking up a calculus in the bladder, and devising and employing suitable instruments for the attainment of this object, and for extracting the fragments of stone from this viscus. The whole merit of this lithontriptic process, it is well known, has been awarded to M. Civiale, who certainly first performed it on the living subject, and has operated more frequently and more successfully than any of his rivals, whatever may have been his original merit.* To us, this dispute is of no importance, further than the love of justice would induce us to render to each his own credit; a question to be decided only by their compatriots. The work of M. Leroy is, however, by no means confined to the object alluded to, but presents us with an interesting and valuable history of the most important medical, as well as surgical lithontriptics. Many of these, being comparatively little known to the profession in this country, we shall briefly notice, regretting that we cannot at present republish the interesting plates of lithontriptic instruments which accompany this volume.

In the diagnosis of calculus, as well as in its treatment by the new methods, the use of the straight catheter or sound is of importance. Lieutaud appears to have suggested the possibility of using a straight instrument in 1769: in his Précis de Médecine Practique, t. I, p. 648, he says, "I know of no case, except where a stone is engaged in the urethra, which would prevent a skilful hand, conducting a straight instrument into the bladder." This suggestion was unheeded by the profession, and in 1810, it was again incidentally mentioned by M. Montaigu, in a thesis published at Paris. It remained for a Bavarian surgeon, M. Gruithuisen, to demonstrate publicly the practicability of this operation, and to deduce from it most of the practical applications of which it is susceptible. He published his account in 1813, in the Gazette of Saltzbourgh; but, according to our author, this discovery was feebly heard amid the thunder of European wars, and it remained for M. Amussat in 1822, to fix public attention on the practicability of employing straight instruments in the male subject. This fact is now conceded by experienced men, although we cannot yet credit the assertion, that straight instruments are more easy of introduction than the curved. p. 48.

Passing over the diagnostic measures, more or less familiar to us all, we come to the treatment of calculi, which M. Leroy divides under six heads. 1st. Lithontriptic remedies taken internally, conjoined with a suitable regimen. 2nd. Solvent injections into the bladder. 3rd. Solution by means of the voltaic battery. 4th. Extraction through the urethra with, or without dilatation of this canal. 5th. Mechanical division of the stone (lithontrity.) 6th. Lithotomy.

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* Vide vol. 2, p. 431 of this Journal for Civiale's statements.

Under the first of these divisions, allusion is made to some of the old remedies for the stone, particularly to the celebrated remedy of Mrs. Stevens, consisting principally of carbonate of lime, and cases of its occasional efficacy are adduced. The improvements of modern chemistry are noticed, and the important fact, that an acid condition of the urine, on which the formation of many calculi depends, can be altered or prevented by the internal use of alkaline medicines, is fully confirmed. Dr. Cooper, the learned president of South Carolina university, has proved that similar changes can be effected in the cutaneous secretions. As to the proper diet, simple vegetable food is proved to be the best. The observations and opinions of Magendie, that articles free from azote, are best suited to prevent and to correct a calculous diathesis, are illustrated by cases, in which calculi disappeared under its employment, and returned when animal food and rich viands were resumed.

2nd. The idea of solvent injections into the bladder was probably first acted on by Baronius in 1614, and has since been tested in various ways, hitherto unsuccessfully. Chemical experiments on calculi out of the body, have evinced that most, if not all, can be destroyed. "It is no longer doubtful," say the able experimental chemists, Fourcroy and Vauquelin, "that chemistry, once assured of the intimate nature of the present kinds of human calculi, can furnish suitable solvents for each. These solvents can be reduced to three: potassa, in the form of lye, for calculi of uric acid and urate of ammonia; muriatic acid greatly diluted, for the ammoniaco-magnesian phosphates; and nitric acid equally diluted, for the mulberry calculi (muraux). The method of injection into the bladder, is the most certain method of effecting their solution; and in this, there appears to be no danger; for often have fluids more active and more acrid than these been injected; and the urine itself is often more irritating." These bright visions have not been realized; but there is some reason to hope, that the ingenuity of M. Civiale, of our author M. Leroy, of M. Robinet and others, will yet triumph over the difficulties which have hitherto presented. These gentlemen report, that they can, by suitable instruments,[*] envelop the stone in the bladder, in a pouch so as to enclose it completely, and to admit of solvent injections being thrown into this pouch without escaping into the bladder. They say, that the *only desideratum* at present is to discover some material for this pouch which will not be acted on by the solvent; a discovery which the last-mentioned gentleman says he has made, and which he will develop as soon as he has collected a sufficient number of cases to ensure professional approbation.

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[*] A lithographic engraving of Leroy's instruments, ("Lithoprione à filet") accompanies the work under notice.

Another suggestion has been made on this subject: "If mild fluids, introduced in small quantities, into the bladder for a limited time, have a marked effect on calculi there situated, solution must be much more rapid, when a continued current of the solvent flows into the bladder, and if, instead of a few ounces, several pints should be made to circulate in a short time." Influenced by this reasoning, **Hales** employed a double catheter; to the orifice of one tube, he connected the urethra of a bullock, which communicated with a reservoir of a solvent fluid, three feet above the instrument. The catheter was introduced into the bladder of a dog, and in four hours and a half, he caused three gallons of water at the temperature of the urine, to circulate through the bladder, the fluid entering by one channel, and returning by the other; and this without any inconvenience to the animal. M. **Gruithuisen**, our ingenious Bavarian surgeon, was the first to improve this idea of **Hales**, and has modified the instrument employed. (A plate of this last is given.) M. **Gruithuisen**, believing that the stone would be destroyed in this case, not only by the nature of the solvent, and its continued supply, but also by its impetus or momentum, proposed that the reservoir of fluid should be situated "on the roof of the house," to give a practical illustration, says our author, of **Ovid**'s observation,

> Quid magis est saxo durum? quid mollius unda?
> Dura tamen molli saxa cavantur aqua.

Care, however, must be taken, that irritation of the bladder be not induced. M. **Cloquet** has also made many experiments, yet unpublished, on the effect of a continued stream of distilled water on stones in the bladder by means of the double catheter.

Subjecting calculi of a small size to the influence of a double current of some solvent fluid, may often answer, but for large stones, the process must be too tedious. "This practice," says M. **Leroy**, "should always be employed when the stone is adherent to the mucous membrane, or when it is contained in an incomplete cyst or pouch of the bladder, and when gravel, and no calculus, is present. Finally, this plan is advantageous, after a stone has been broken in the bladder, to wash out the sandy particles, to diminish the fragments, and facilitate their discharge. Its employment is always free from pain and danger." p. 95, 96. M. **Magendie** has in this way afforded relief to an Englishman 85 years old with an adherent calculus.

3rd. As soon as the power of galvanism was generally known, the idea was suggested, says our author, of employing its agency in dissolving calculi. He affirms that M **Bouvier Desmortiers** was the first who conceived and expressed this hope, in his work on the nature and effects of the electric fluid, before the experiments of Sir H. **Davy**, on the decomposition of the alkalies and earths, were known.

The same idea was promulgated in this city, in the spring of 1812, by Dr. J. B. **Sutherland**, in his "Inaugural Dissertation on the Chemical Decomposition of Calculi by *the agency of Galvanism.*" In this essay, Dr. S. alludes to the brilliant experiments of **Franklin**, on the identity of lightning and electricity, and proposes the same agent for the decomposition of calculi in the human bladder, "that man may be cured of this complaint without a surgical operation." He proposed that conductors should be introduced into the bladder through cannulæ, that these conductors should be insulated, and so arranged as to operate simply upon the stone without injuring the bladder, by any direct or indirect agency. The first experiments, however, on this subject, appear to have been made by M. **Gruithuisen** in 1813. He isolated two platina wires from the opposite poles of a galvanic battery, by means either of tubes of glass, or else by a network of silk, covered with gum lac, and then glided the whole through a metallic cannula. He recommended that the extremities of the platina wires should not be separated more than is necessary to come in contact with the stone, as the galvanic action is more intense, as the conductors are approximated; care, however, being taken that they are not in contact, or so near as to permit the transmission of the fluid without affecting the stone. He observes that hardly any calculus can resist the influence of a voltaic pile of 300 pair; deep perforations are made in a few minutes, where the stone is in contact with the conductors. He advises, that if the stone be very hard, to employ six hundred to a thousand plates; "when the stone will dissolve like butter;" ("comme du beurre.")

Apparently ignorant of these experiments, MM. **Prevost** and **Dumas**, in 1823, conceived the same ideas, and extended the researches of the Bavarian surgeon. Their communication to the Academy of Sciences, may be seen in the Annales de Chimie et de Physique, for June and July 1823.

"It was necessary to determine first the influence of the pile on a calculus out of the body. They hence submitted a fusible calculus to the action of a pile of a hundred pair, which they excited every hour: the platina conductors which touched the calculus, were separated six or eight lines, and the whole was plunged in a vessel filled with pure water. In twelve hours, the stone, which originally weighed 92 grains, was reduced in weight to 80: after a further operation of sixteen hours, the whole mass was so friable that the slightest pressure reduced it to small grains, the largest fragment not exceeding the size of a lentil."

Anxious to ascertain, if a galvanic pile of the power above used, would not produce too great an irritation on the living bladder, MM. **Dumas** and **Prevost** fixed a fragment of a calculus between the extremities of the conductors, and introduced it thus secur[illegible] the bladder of a dog. The current was established, and the animal [illegible] the galvanic action for one hour without any indication of pain. The same experiment having been repeated for six days, the fragment became very friable and had lost much of its weight. These gentlemen have further satisfied themselves of the little risk of a pile of 120 to 150 pairs, by plunging the tongue in a liquid in which the conductors were immersed, in such a manner, that it was only fifteen to eighteen lines removed from them; this organ perfectly supported the galvanic influence. They have undertaken the [illegible] of [illegible] by introducing calculi into the bladder of animals, and then attempting their destruction by galvanism. The results are not yet made public. "The apparatus which they employed, is composed of a canula of gum-elastic, which encloses the two platina conductors, covered with silk through their whole length excepting their extremities, which, slightly separated from each other by a spring, are fixed on a button of ivory which closes the opening of the canula. This button is formed of two halves of a sphere, fixed each to one of the conductors in such a manner, that their plain surface, where the platina is observed, shall come in contact with the stone." "MM. Dumas and Prevost, after many experiments, have observed that an injection of a solution of the nitrate of potassa renders the action of the pile more prompt than when water is injected. When the calculus consists of pure lithic acid, it cannot be destroyed by the voltaic battery alone, because all the atoms, being of the same nature, are equally attracted to the same pole; but if they plunge the calculus into a solution of the nitrate of potassa, and bring it in contact with the conductors, the *salt* will be decomposed; but as the platina wire is in contact with the stone, the potassa, as it is liberated, will combine with the uric acid, with which it forms a soluble salt. This is a chemical theory, very simple at first view, but will these changes be similarly effected in the living bladder?" p. 102.

M. Leroy imagines, that the apparatus of Dumas and Prevost might be greatly improved; and he describes an instrument of his own devising, for enclosing the stone in a net of platina wire, that it may be perforated partially or completely by means of a drill, so that one conductor may be passed into this perforation, while the other is in contact with the surface of the stone. "The calculus, thus attacked at the centre and circumference, will be dissolved more promptly, and cannot escape from the influence of the pile, while the bladder will not be endangered by the galvanic fluid." The ingenuity, which has thus been displayed in these scientific attempts to obviate the necessity of lithotomy, deserves great praise, and affords an earnest of eventual success.

4th. Extraction of calculi through the urethra, even when they have been of large size, has occurred occasionally by the mere efforts of the patient. Examples are given, especially among females. Very often, however, these bodies are arrested in the canal, causing a retention or incontinence of urine. To extract them, surgeons have employed small curettes, forceps of different construction, and a metallic noose. They have perforated the stone with a drill, and have resorted to suction at the extremity of the penis, either with the mouth, or with small syringes. These methods, assisted by warm baths and oily injections, have often prevented the necessity of incisions.

Mechanical dilatation of the urethra in the male, as well as in the female, has often been useful; but experience seems to restrict this practice to comparatively narrow limits, for *incontinence of urine* has often resulted from inordinate distention, and proved a miserable substitute even for the pains of a urinary calculus. This unpleasant result is said to occur less frequently when the dilatation is slowly accomplished.

Calculi have been extracted also directly from the bladder, by means of forceps, and other analogous instruments. Our author has given plates and descriptions of several ingenious devices of his own, which may, possibly, be successfully employed on the living subject.

5. The breaking up of the stone in the urethra and bladder, (*lithontritie*,) as already mentioned, is practicable, and often preferable to every other method of relief. The remainder of the work which we are briefly noticing, is occupied with the history of this operation, a description of the instruments, the manner of operating, and the circumstances, favourable or unfavourable, to its successful accomplishment.

Some obscure hints for breaking up the stone in the bladder, are to be found in the writings of SANCTORIUS, and of HALLER; but M. GRUITHUISEN is regarded as the first surgeon, who published an account of this operation, and of the necessary instruments, in the year 1813.

In 1819, Mr. ELDGERTON described, in the Edinburgh Medical Journal, a double cannula and a flat file for destroying the calculus in situ.

In April, 1822, AMUSSAT introduced *straight* cannulæ into the male bladder; and in the succeeding month, our author and M. AMUSSAT presented their respective lithontriptic instruments to the Academy of Surgery.

"Having the same end in view, our means, however, were somewhat different. M. AMUSSAT endeavoured to break the calculi by the strength of his instruments; I, to reduce them to powder by a process more tedious, but perhaps more certain." p. 137.

Descriptions of these instruments were immediately published in the medical journals; and it was not until a year afterwards, in 1823, that M. CIVIALE first operated successfully on the living subject, and secured to himself the whole credit of devising as well as executing this important operation. Such is the history of this operation, as presented by M. LEROY; and we would refer our readers, for the statement of his rival M. CIVIALE, to p. 431 of vol. ii. of this journal, acknowledging our own inability to decide on their respective claims, as thei[illegible]ents as to facts differ materially.

As to the instruments and the manner of operating, recommended by M. Leroy, they are very similar to those of M. Civiale; and could not be understood without the assistance of plates. We shall, therefore, close our notice, by adverting to the various circumstances which forbid this new operation.

Infancy, which is peculiarly liable to calculous disorders, can seldom enjoy the benefits of the lithontriptic method, as the curvature of the urethra presents greater obstacles to the use of straight instruments; and there is, moreover, at that age, a want of patience and docility so necessary in an operation of this kind.

There are some individuals whose *sensibilities are so great*, that the simple introduction of a sound is insupportable, and would induce convulsions. There are also various diseases, general and local, which might forbid this operation, particularly affections of the urinary organs; viz, mal-formations, as a septum dividing the bladder into two cavities: a congenital cystocele, &c. &c. Hypospadia, (or the opening of the urethra on the under surface of the penis,) would generally prevent this operation, unless the opening existed in the perinæum, when the operation would be facilitated.

The existence of *calculi in the kidneys and ureters*, with one in the bladder, ought not to prevent lithontrity, but gives it, in fact, a superiority over lithotomy, as several operations become necessary.

Encysted or *adherent calculi* cannot be destroyed by the new method.

Various diseases of the bladder also forbid it; as an acute catarrhus vesicæ, spasm of this viscus, cystitis, vesical ulcerations, fungous tumours, or a varicose engorgement of the vessels; a thickened, indurated, or cartilaginous state of the parietes of the bladder, &c. Care should be taken not to confound a catarrhus vesicæ with the symptoms of calculus, as the treatment for the last would usually aggravate the former.

"M. Cloquet says, he has cured chronic catarrhs of the bladder, when very severe, by establishing through it, by means of a double catheter, a continual current of distilled water. This practice should therefore be imitated in those cases, where a calculus exists, with a catarrh of the bladder, so severe as to prevent lithontrity. We thus combat at once both cause and effect." p. 174.

Engorgement, and other diseases of the prostate gland, and a contracted urethra, from a cause exterior to this canal, from a cause interesting its parietes, or situated on its internal surface, may altogether prevent or delay this operation for breaking calculi in the bladder;—an operation, which, notwithstanding its inapplicability to certain cases, appears to us, under appropriate circumstances, to be decidedly preferable to lithotomy.

Article XV.—*A Treatise on Verminous Diseases; preceded by the Natural History of Intestinal Worms, and their Origin in the Human Body.* By Valerian Lewis Brera, Professor of Clinical Medicine in the University of Pavia, ornamented with five Plates. Translated from the Italian, with Notes; by Messrs. I. Bartoli, M. D. &c. &c., and Calvet, Nephew, &c. &c. Paris, 1804. Translated from the French, with Additions, by John G. Coffin, M. D. Boston, 1817.

In drawing up the review of Bremser's Treatise on Worms, inserted in a former number of this Journal, Dr. Coffin's translation of Brera was not in our hands; and it appears to us to be by no means so extensively known among our countrymen as it unquestionably deserves. It is the *only* accessible source of information, on this important subject, possessed by the American practitioner; and is the translation of a book, which was, certainly, at the time, the best extant for this purpose. As, however, we have given at length, an analysis of a later and more copious work on the same department of medical knowledge, and as we there made frequent use of Brera's work in the French, we will not, in the present instance, undertake the same task, but content ourselves with merely indicating the translation to the reader, and making some remarks on the character of the volume produced.

The reader will find, in the review already referred to, various notices of professor Brera, which point out the great importance attached, by the learned of Europe, to his publications. We have, in fact, been very scantily supplied with elementary treatises on this subject; as no original work on it is, we believe, to be found in either the English or French language. It is truly surprising that such a lacuna in the knowledge of their countrymen, should not, among two such book-making nations, have attracted the attention of some industrious and talented individual, ambitious of introducing himself to the medical world, under the favourable auspices of a useful work.

Dr. Brera informs us, that he prepared the present treatise to serve as part of a course of lectures, which he was called upon to deliver as professor extraordinary of practical medicine in the university of Pavia; that he originally intended it to be comprised in the same volume with his Treatise on the Worms which inhabit the Human Body; but subsequently determined to publish them separately, from the distinct nature of their principal objects. The present volume is divided into four lectures, of very unequal length: the first, furnishing a description of the principal worms of the human body; the second, an essay on the origin of worms; the third, an account of the symptoms of verminous diseases; and the fourth, directions for treating them. To each lecture are subjoined copious notes, containing the references to the authorities quoted, and many observations of interest, which the author thought excl[illegible] the finished character of his main work. The book has many of the [illegible]vantages on which we commented when speaking of Bremser; and which, perhaps, are unavoidable in such cases. They arise from the fact of a double translation having in both instances been used; and from notes having been appended by three different hands. Thus we have the author's notes at the ends of the chapters, those of the French translators at the foot of the pages, and the collections of the American translator and editor, incorporated with the text. These circumstances give the volume a broken and dispersed appearance; and, as the learned Italian has given us authorities for almost every thing he says, and as the figures used for reference are large and conspicuous, the attention is very much diverted from the perusal. By opening the leaves at random, we find no less than twenty references in two pages (110, 111.) These circumstances are not chargeable to Dr. Coffin; as the French edition has exactly the same appearance, and even in a higher degree, from the use of large Roman capitals for reference. On the other hand, the work is extremely well adapted to the purpose for which it was designed, if it be used in either of two ways. If the reader abstract his mind from the notes, and briefly peruse the text, he will gain enough for his general purpose, and find it a polished production, written in a pleasing and agreeable manner, and still better adapted to general use from its conciseness. If, instead of mere general instruction, he be in search of more accurate knowledge, and intend to follow out discussions, and collate references, he will find abundant means in the voluminous notes which are appended. All we regret is, that the text of our author is not given to us in a compact body, so as to be easily read through without having its continuity and elegance broken up by numerous or conspicuous references. The notes and additions might then be advantageously read and studied at the end of the volume.

Dr. Brera is, it will be recollected, an advocate of the generation of worms from eggs, and not by spontaneous generation. He believes ova to be capable of passing into the circulation by absorption. Our readers will recollect the curious discussions on this point, which we noticed in a former number. We here learn that the strange metaphysical ideas of professor Bremser, on the production of animated beings by the combination of disengaged spirit with matter, originated from no less an authority than the celebrated entomologist, Redi. Dr. Brera speaks of "his famous hypothesis of the sensitive soul, inherent in those parts of the human fabric, from which the worm was to originate." p. 103.

B. H. C.

ARTICLE XVI.—*The Philosophy of the Human Voice: embracing its Physiological History; together with a System of Principles, by which Criticism in the Art of Elocution may be rendered intelligible, and Instruction, definite and comprehensive. To which is added, a brief Analysis of Song and Recitative.* By JAMES RUSH, M. D. Phila delphia. Maxwell. 1827. pp. 586.

AN original and profound physiological work has been published in our city, and no one has yet appeared to review it.

This may arise from two causes, one of them highly honourable, and the other not discreditable, to the work itself. Dr. RUSH's book is, in every sense of the word, highly original. He has chalked out for himself, and laboriously filled up, a new branch of science; and must be content to share the destiny of all originators, that "painful pre-eminence" in which "none aid you, and few understand." To give an analysis of such a book, with an adequate comprehension of the task undertaken, requires a considerable length of time; and no one, it seems, has yet been able to perform that labour sufficiently to his own satisfaction to encourage him to venture before the public.

The other preventive to which we alluded, is the character of the work; which is not medical, or which, at least, only touches medicine at one of its remotest extremities. This has kept it out of the ephemerides of our profession. One of the supporters of this journal had it in contemplation to favour us with a review of it; but was dissuaded by the above reasons, and principally by the consideration, that it would hardly be fair to our readers to occupy a large share of our pages with matter whose affinity to their real object was questionable or remote.

If, as we believe we are correct in stating, it be no easy task to give a sketch of Dr. RUSH's work within the more extended bounds of a review, it must, of course, be understood to be, in the present brief department, absolutely impossible.

Dr. R. has intentionally omitted the whole subject of the mechanism of the voice; for which he refers to the common treatises on physiology. He has confined himself entirely to the study of those modulations of sound, which constitute speech and express the emotions of the mind; and this subject we should judge he had completely exhausted. He found it a new and unexplored mine, an untried field of knowledge; with the exception of the partial and not very celebrated researches of Mr. JOSHUA STEELE, of SHERIDAN, and of WALKER, and of an occasional vague and unimportant hint from some other grammarians. Dr. R. thinks that a little attention to nature would, by the analysis of observation, have enabled moderns to decide with certainty and accuracy, the long contested question of the Greek and Latin accents.

He conceives that, by a minute, careful, and reiterated attention, he has become able to express in definite language, all those varieties which are communicated to the human voice by "quality, force, time, abruptness, and pitch;" designations which he believes to include all "the expressive powers of speech."

The diction of the more general parts of the work is somewhat peculiar; but it is not our present charge to sit as judges of diction. Dr. RUSH speaks in the Miltonic style of dignity; and it requires to be a great work to acquit him of presumption. He has written it for posterity; and cares little about the immediate reception it may experience from the world. He has already found its "rewards and punishments in the varied pleasure and perplexity of its accomplishment." He is satisfied in his own mind, that when the future inquirer shall have amply discussed, defended, and finally settled the real, unvarying principles of speech, they will not be found to differ very materially from those of the present work; and, under this impression, he sits down to await his posthumous fame, satisfied for his task by his love of the study of nature.

To such lofty feelings may Providence forbid that we should object: they are the source of the greater part of all that has benefited and dignified our nature. Without the support derived from the abstract love of doing good, those illustrious lights who have benefited in so many instances the medical profession, would never have been able to abide the buffettings which they have undergone while languishing in obscurity; nor would their subsequent labours, if dictated by the love of praise or wealth alone, have been so glorious, so permanent, and so successful. But what is more to our present purpose, is the statement which our author makes in the concluding sentence of his volume; that he "laid aside a practical work in medicine, with the view of undertaking and completing this, and that he is now going to resume it." We are a part of that public who have long wished and hoped, till hope gradually died into forgetfulness and a sense of the diminishing utility of the object, that Dr. RUSH would prepare for the press and publish the lectures of his illustrious progenitor. Glad as we should unquestionably be to welcome any medical publication from the pen of one whom we know to be a man of genius, we must express our lingering hope and fixed wish, that nothing may divert him from a task, which, though he may feel it inferior in dignity, is not really so, and which ought to supersede, at present, any original work, if from the simple fact that there is but one person who has it within his power and qualifications to do it. Its usefulness, we have said, has diminished, but is still great, and what is not done from this stimulus might be done for celebrity. Each breeze that brings ships to our ports from the European world, wafts assertions from a foreign nation that *they have taught* American physicians to reason physiologically on disease, and to free themselves from the fetters of ontology, which are, in fact, those of nosology. Is it right, then, for the representative of Rush to rest quiet, as though he had not been invested with the serpent staff? It is not at all improbable that this may be the last appeal which will ever reach our author on this subject. The tide of medical opinions has changed; he who would stand still, recedes; and the fresh laurels of no ignoble crowd of competitors occupy the place of the venerated tree of our preceptor. How, then, will Dr. Rush reconcile it with the lofty sentiments which we have just described, to withhold from the American people their national system of medicine?

B. H. C.

QUARTERLY SUMMARY

OF MEDICAL AND SURGICAL INTELLIGENCE.

I. ANATOMY.

1. *Imperfect Intestinal Canal.*—In an inaugural dissertation, M. A. Schæffer of Wurtzbourg has given the following extraordinary dissection. A child, born at the full time, had a sallow skin, and vomited all the liquids given to it, while it passed nothing per anum. In seven days after birth, it died very much emaciated. The duodenum, which was much dilated, terminated in a cul de sac, after having received the cholidochus and pancreatic ducts. It was filled with *meconium* and bile. The remainder of the canal commenced, at some distance from the duodenum, by a closed end, and was continued uninterrupted to the anus. The small intestines and colon were not more than two and a half lines in diameter, and contained only a small quantity of white tenacious albuminous matter. This, taken in connexion with previous observations, proves that meconium comes from the liver.—*Bulletin, Jan.* 1827.

2. *Placenta.*—M. Lauth, Jun. informs us, that he has injected with very fine tubes two different orders of vessels in the membrana caduca. One kind proceeds from the caduca to the placental vessels, and the other, from the placenta to the vessels of the caduca. All this belongs to the vascular structure of the womb. According to M. Lauth, these vessels are lymphatics, the first being destined to separate from the maternal blood the materials requisite for the nutrition of the fœtus, and the second, to withdraw from the fœtal blood such matters as are no longer useful.—*Ibid.*

3. *Extra-Uterine Pregnancy.*—M. Breschet presented, some time ago, a memoir to the French Academy of Sciences, on Extra-Uterine Pregnancy. In this memoir, M. B. reports six cases of a new kind of extra-uterine pregnancy, which he calls *interstitial;* because the fœtus is developed neither in the ovarium, the tube, nor abdominal cavity, but in a cavity hollowed out in the substance of the uterus itself. Vid. vol. 3, p. 204 of this Journal.

After the death of the mother, which has always occurred pretty early, the tumour has always been found ruptured, the opening being into the abdominal cavity, and in no instance into the proper cavity of the uterus itself. M. Geoffroy St. Hilaire has made a report on M. B.'s memoir, in which he states his belief, that there is only one kind of extra-uterine pregnancy, instead of four sorts, and that all the varieties are accidental deviations from this one.

A certain kind of organization may exist in a woman, so as to prevent the ovum from reaching the uterine cavity, in which case it develops itself in the ad-uterum. When the size of the embryo has become disproportioned to the distensile capacity of this ad-uterum, either rupture takes place of the sac, or the ovum makes a retrograde march through the tube, and falls into the abdomen, causing an *abdominal pregnancy.*

Mr. Geoffroy thinks it impossible for the fœtus to be developed in the interior of the ovarium, and consequently that there can be no ovarian pregnancy properly so called.—*Ibid.*

4. *Beautiful Experiment by M. Mayer of Bonn.*—In order to prove that the oxygen of the air may pass through the membranous septa of the air cells, and thus get into the current of the blood, M. **Mayer** made an experiment, which he afterwards varied in several modes. The experiment consists in killing an animal by strangulation, in opening the thorax and pericardium immediately, and afterwards dividing the aorta and pulmonary artery. Distilled water must now be injected into the pulmonary artery, until it flows from the cut end of the aorta perfectly colourless. Having washed out the blood, a green solution of cameleon mineral, which has been carefully preserved from contact of the air, is to be injected by the pulmonary artery: it will flow out from the aorta without any change of colour. But, if the end of the aorta be now tied, and the injection be again thrown in by the pulmonary artery, which must also be secured by a ligature, and artificial respiration be kept up for a few minutes, the fluid injected will be changed to a beautiful red colour, proving that the oxygen of the air has passed the membranes and acted on the cameleon mineral.—*Ibid.*

II. PHYSIOLOGY.

Our physiological collections for this number will be very meagre; the journals having furnished but little new or interesting matter in relation to that department of medical science. Indeed, when we consider the vast acquisitions which it has made in the last seventy years, it seems almost a vain expectation, that any thing considerable remains to be done. The limits of the nervous and absorbent functions remain, however, unremoved to their greatest extent, and it is within them, if any where, that we may look for more discoveries and augmentations.

5. *Digestion.*—MM. **Leuret** and **Lassaigne** on the one part, and Messrs. **Tiedemann** and **Gmelin** on the other, were competitors for a prize of 3000 francs, offered by the Academy of Medicine of Paris, in 1823, for the best memoir on the subject of digestion. The commissioners for awarding the prize, which was to be determined in 1825, consisted of MM. **Magendie**, **Thenard**, **Gay-Lussac**, **Cuvier**, and **Dumeril**. These gentlemen, thinking, that neither of the competitors had merited the prize, considered, nevertheless, that both memoirs were possessed of great merit, and recommended that honourable mention should be made of them by the academy, and that each memoir should be entitled to 1500 francs, as compensation for the expensive experiments, which were made in the course of their preparation.

These works are at variance in some results; and Messrs. **Tiedemann** and **Gmelin** have published an indignant pamphlet, and scornfully refuse to accept either the money or the praise of the academy, both which Messrs. L. and L. are said to have received with gratitude.

MM. **Leuret** and **Lassaigne** state, that "the composition of saliva is the same in all animals; in man, the dog, and the horse: it contains one per cent. of solid matter, consisting of free soda, the muriates of soda and potassa, carbonate and phosphate of lime, a trace of albumen, and much mucus." The other gentlemen's experiments were made with pure saliva from the salivary duct of the sheep and dog, and with the impure saliva of man. In addition to the substances mentioned above, they found osmazome and alkaline acetates. The saliva of the sheep contains also *sulpho-cyanate of soda*, but no acetate. In man, the alkali in all the alkaline salts is not soda but potassa; and there is also a sensible quantity of sulpho-cyanic acid. "It appears, therefore, that the animal principles are nearly the same in all, but that the salts are different in each."

The German and French physiologists agree in the results of their experiments with saliva on aliments out of the body. It accelerates putrefaction, lubricates the alimentary bolus, brings sapid bodies in contact with the organ of taste, and prepares the food for digestion by softening it. "But TIEDEMANN and GMELIN," says the Edinburgh Reviewer, "likewise conceive, that its animal principles serve to assimilate unazotized aliments, and as to the sulpho-cyanate of potassa, they ask whether its object be not to destroy the contractility of the fibres of the food. This question may be answered by another: is there any contractility to destroy in boiled or roast meat?"

6. *Functions of the Spleen.*—MM. LEURET and LASSAIGNE, in their memoir on digestion, adopt the opinion, so long ago inculcated by Dr. RUSH, that the spleen is a mere diverticulum for the blood, and they say, during digestion. There is an increased afflux of blood to the mucous alimentary surfaces, when digestion is going on; consequently more blood must pass into the hepatic circulation. The meseraic veins must be much distended, (and they are not very extensible,) unless the splenic vein ceases to contribute its usual quantity to the portal circulation: but if it discharges less, its minute ramifications, which are highly extensile, will contain more, and thus serve as a diverticulum, while the digestive blood, if we may so speak, is finding its way through the liver. They also observe, that the spleen, examined in an animal that is fasting, has a rosy, or vermilion tint, is bluer after chymification has begun, but becomes of a deep bluish-black, when the chyme has passed the pylorus.

7. *Pancreatic Juice.*—MM. LEURET and LASSAIGNE have examined the pancreatic juice in the sheep, dog, and horse. M. MAGENDIE had found but one drop to be procured, in his experiment, in the course of half an hour. Messrs. TIEDEMANN and GMELIN got 89 grains from a sheep in five hours, and 154 grains from a dog in four hours; while Messrs. L. and L. obtained three ounces from the horse in half an hour. The latter say, it is always alkaline, but the others inform us, that the first portions obtained are feebly acid always, but what flows afterwards is faintly alkaline, which may be owing to the operation.

Messrs. LEURET and LASSAIGNE consider its composition to be identical with that of the saliva. Messrs. TIEDEMANN and GMELIN say, that it differs from saliva in never containing any sulpho-cyanic acid, free soda, or mucus; in being acid; in containing more solid matter, especially albumen; and in containing, at least in the dog, a principle precipitated rose red by chlorine, and sometimes a good deal of phosphate and acetate of soda.

Messrs. T. and G., reasoning from the large quantity of azotized principles which it contains, infer that its purpose may be to animalize the unazotized nutriment of vegetable matters. The circumstance that the pancreas is much larger in herbivorous than in carnivorous animals would seem to favour this opinion.—*Edin. Med. and Surg. Journ. April,* 1827.

8. *Cephalo-Spinal Fluid.*—At the sittings of the French Academy of Medicine, Dec. 4th and 11th, M. MAGENDIE read a memoir on the fluid, which is found in the cranium and spine of mammiferous animals. He finds that the quantity varies in the healthy adult from two to five ounces. Among other uses, M. MAGENDIE supposes this fluid to be destined to keep these cavities in a state of plenitude, which otherwise could not be maintained, owing to the shrinking (dessechement) of the brain and spinal marrow of aged persons, which would cause a void injurious to the functions of those organs. He has always found this fluid in large quantity in emaciated

and aged women at the Salpetriere. Many experiments which he has performed prove, that this liquid is rapidly renewed when artificially evacuated.

This gentleman has shown by experiments, that if the spinal fluid is evacuated, and allowed to cool to a certain degree, and is afterwards injected into the cavity, a trembling and momentary paralysis are produced; but if the fluid is drawn off, and reinjected without cooling, these accidents do not happen. Another observation is, that merely bending the head forward on the breast, occasions the spinal fluid to move, so as to accumulate it in particular places; and he suggests that it may play an important part in the development of electricity.

The discovery of the cephalo-spinal fluid naturally led him to investigate the nature of that which is found in the cerebral ventricles. He had a subject with decided effusion into the ventricles of the brain. Whenever he pressed, ever so slightly, on the hemispheres, he found that a limpid fluid escaped through an opening immediately before the end of the fourth ventricle, at the extremity of the calamus scriptorius. In examining a great number of healthy brains, he found this opening in all, and at the same place. Hence, he asserts, that the fourth ventricle communicates freely with the sub-arachnoid cavity of the spine. This communication is described as a round opening, at least two lines in diameter, and sometimes larger, placed between the two posterior arteries of the cerebellum. M. Magendie proposes to call this the entrance into the cavities of the brain.

The two lateral ventricles, it is well known, communicate with the third ventricle, and the third with the fourth; and it would appear, from the present observations of Magendie, that this latter communicates with the spinal cavity. In a case of spina bifida, pressure on the tumour occasioned a bulge in the fontanelle, and the child suffered from compressed brain, being drowsy, (*assoupie,*) as long as the pressure was continued. Four ounces of ink, injected into the lower part of the spinal canal, and without much force, was sufficient to blacken not only the whole surface of the brain, but also the parietes of all its cavities.

In more than fifty dissections of persons who had never exhibited any signs of cerebral affection, he always found from half an ounce to two ounces of this serous fluid. Care ought to be taken, in dissecting, not to force the water out of its proper place, and it should be collected by means of a dropping tube, (*pipette.*) If the quantity exceed two ounces, he thinks it is the result of a morbid state.—*Revue Méd. Jan.* 1827.

9. *Absorption.*—Professor Regolo Lippi, of Florence, has made a series of experiments on the absorbing vessels, which enable him to come to the following conclusions:

1. In man, and in animals which nearly resemble his physical structure, absorption is probably effected solely by the lymphatic system of vessels.

2. Absorption seems never to be effected by means of veins, whether in the healthy or diseased state, so long as life continues.

There are admitted by anatomists, four kinds of lymphatic vessels. 1. The chyliferous: 2. Those arising from the mucous and serous membranes: 3. The cellular and those which originate throughout the whole body: 4. The cutaneous. To these, professor Lippi would add a fifth kind, or those which he can demonstrate as arising from the arteries.

Lymphatic vessels arise from the arterial system, from the surfaces of membranes, and wherever secretory vessels exist, or effusions can take place. Veins arise, on the contrary, from the arterial capillaries, and from the lymphatic system. All lymphatic or absorbent vessels do not, therefore, go to the thoracic duct. "I discovered and published, in 1824, that many lymphatic vessels opened into the vena cava and vena portæ."

Again. "The lymphatics which I discovered, empty their contents into the vena cava, into its divisions, and into the azygos; and they are so numerous, that we may affirm, that there is not a vein which does not communicate with lymphatic vessels." He also asserts, that the junction of the lymphatics with the vena cava, about the third lumbar vertebra, is always to be found in the natural state.

The chyliferous absorbents do not all terminate even in the thoracic duct; this physiologist having traced them to the emulgent veins, and elsewhere.—*Journal des Progres des Sci. Méd.* 1827.

10. *Bellingeri on the Nerves.*—C. F. Bellingeri, of Turin, has published two dissertations; one on the Antagonism of the Nerves, the other consisting of Physiological experiments on the Spinal Marrow. They are contained in the third volume of the Memoirs of the Royal Academy of Sciences at Turin.

Like Mr. Charles Bell, the Italian writer describes the spinal marrow as consisting of six longitudinal bands or bundles, two anterior, two middle, and two posterior. The anterior fissures or divisions, with the lateral and posterior ones, separate these bundles from each other. The cineritious matter of the medulla spinalis presents, when transversely divided, the form of the letter H. The anterior and posterior roots of the spinal nerves have a triple origin. The anterior are composed of filaments coming from the anterior and lateral bundles or columns, and also from the anterior fissures; while the posterior origins are derived from the posterior and lateral columns.

When he completely or almost entirely divided the posterior roots of the lumbar and sacral nerves, in lambs, kids, and frogs, the power of extending the lower extremity was absolutely destroyed on the corresponding side, while the power of flexion was preserved. The other limb was unaffected. The sense of touch was also wholly abolished in the injured limb, but unaffected in the sound one.

Hence, this physiologist concludes, that the posterior roots of the spinal nerves are destined to communicate the power of extending the limb, to give the sense of touch, and to convey painful impressions to the sensorium.

The division of a large proportion of the anterior roots of the lumbar and sacral nerves in lambs, and their complete division in frogs, suddenly destroyed the power of flexion in the corresponding extremity, leaving the extensor muscles unaffected, and not producing any sensible diminution of the touch or ability to feel pain. Whence, he naturally concludes, that the anterior roots do not serve in the least degree the purposes of sensation, but preside over the movements of the flexor muscles of the limb, and that there is a real antagonism between the anterior and posterior roots of the spinal nerves. It happened, during these researches, that an injury was done to the anterior columns of the spinal marrow of a lamb. After death, the kidneys were found highly inflamed, as well as the mesentery. The acini were thick and white, resembling the serum of half coagulated milk. These appearances would favour the inference, that inflammation of the anterior part of the spinal marrow may produce symptomatic inflammation of the kidneys and mesentery.

Bellingeri also ascertained, that when he cut transversely across the *posterior* columns of the spinal marrow in the lumbar regions, the extensor muscles of the leg lost all their power. Sensation and touch were not in the least affected, but some languor of the flexors was induced. Now, when the posterior roots were cut, both extension and sensation were destroyed; while the posterior columns being cut, abolished the extensor power, but not sensation. This he explains on the fact of the triple origin of the spinal nerves, from the posterior and lateral columns of the spinal marrow, and also from the posterior horns of the cineritious substance, whence these roots derive their influence over the touch. When this triple origin is divided, as above mentioned, the double functions are destroyed. On the contrary, when the posterior columns only are divided, the filaments alone arising from them are destroyed, and extension only ceases.

The author of these experiments also states, that, when the posterior columns are divided, as above, the urine is retained in the bladder twenty or thirty hours without being expelled, and then flows involuntarily. From this circumstance, he concludes, that the nerves which preside over the *relaxation* of the sphincter vesicæ muscle, originate from these columns.

He could not make any similar inferences with desirable accuracy as to the sphincter ani muscle.

He also divided the anterior columns between the first and second lumbar pair in lambs. The flexor muscles of the hind legs lost their power, while extension remained perfect, and only a slight diminution of sensibility was noticed. Hence, the anterior columns preside over the flexion of the limbs in quadrupeds, and have little or no concern with sensation; and finally, the anterior columns are for flexion, the posterior, for extension.

Another most remarkable result was, that incontinence of urine was occasioned by the division of the anterior columns, and lasted during life. They, therefore, give origin to the nerves which occasion sphinctorial contraction, and thus there is a real antagonism of the sphinctorial nerves.

When the anterior columns were divided, there was also a retention of fæces as long as the animals (lambs) lived; and after death the rectum was found full of hardened matters. He infers from this, that these columns give rise to nerves of sphinctorial relaxation of the rectum; and it is probable that the posterior occasion its contraction, so that there is also antagonism in this case.

Details are also given of experiments on the lateral columns. Transverse sections of both lateral columns leave touch and motion in the abdominal extremities, they being only a little weaker. The animals passed no excrements; and two out of four retained their urine until death, which occurred in twenty-four hours. The conclusion drawn, is, that the lateral columns do not influence sensation, or motion, as to its direction, but only as to its force; and that they have great influence on the functions of the rectum and bladder.

Experiments on the lateral and posterior columns did not, according to BELLINGERI, affect the respiratory muscles; but respiration was rendered frequent and panting, by the section of the anterior columns.

By a very delicate operation, he divided the gray matter in the centre of the cineritious portion. The abolition of sensation was the consequence, while both kinds of motion continued perfect. In half an hour the power of sensation returned, and became more exquisite than in the normal state of the sense. He, therefore, interposed a thin lamina of wax between the cut ends of the gray matter, immediately after which sensation again disappeared, and did not return for two hours, when, having removed the wax, it again returned, but not to the same degree as in the normal state.—*Ibid.*

11. *Gastric Juice.*—We will not let pass this occasion to notice, that Dr. BOSTOCK, in the second volume of his Physiology, published in 1826, advocates the theory of the solvent power of the gastric juice. His remarks extend from p. 482 to p. 489. He considers it in vain to deny the reality of its solvent property, as exhibited by REAUMUR, STEVENS, and SPALLANZANI; and in a note, p. 486, speaking of MONTEGRE's celebrated experiments on himself, he says, "I conceive that what has been supposed to be the gastric juice, is in fact nothing more than saliva: that it possesses no

peculiar power of acting on alimentary matter: that the principal use of the gastric juice is to dilute the food; and that the only action of the stomach consists in 'une absorption vitale et elective,' in which the absorbent vessels, in consequence of their peculiar sensibility, take up certain parts of the food, and reject others. That the conclusion of M. MONTEGRE, respecting the action of the stomach, cannot be maintained, is correctly observed by Mr. BERTHOLLET, in his report upon the memoir; because, *until the food has undergone a certain chemical change, the substance does not exist which is taken up by the absorbents.*" We have made this citation, as well for its intrinsic merit, as for the benefit of those among us, (and they are not few,) who are disposed to treat SPALLANZANI'S experiments with indifference, to use no harsher term. Either SPALLANZANI and STEEVENS must have been a couple of very dishonest men, or there must be a gastric solvent.

III. PATHOLOGY.

12. *Physiological Medicine.*—The modern doctrines have recently acquired a new addition of strength in the accession of the editors of the Medico-Chirurgical Review, a journal which we must consider as the best in England. This is the more remarkable, as that publication, if we understood it correctly, was, until very lately, decidedly opposed to the new French system. The number for April last commences with a translation of the two first sections of the aphorisms or propositions in medicine, which stand prefixed to the "Examen des Doctrines Medicales" of Dr. BROUSSAIS, and which were, several years since, offered to our countrymen, through a translation by Dr. DUDLEY ATKINS, in a contemporary journal. It is impossible to convey a system or code of doctrines without the ample development which volumes permit; but for the general objects of a journal, an outline or sketch may be useful, for the purpose of enabling the reader to feel the applicability of much of the novelty which he finds extracted from the European publications. In relation to several parts of these doctrines, thus much may be readily obtained from a perusal of the different notes, papers, and reviews, which these volumes already contain; but readers are frequently heard to inquire where they can obtain the outline of the whole. The system of Dr. BROUSSAIS mainly consists in the history and description of the inflammations of the mucous surfaces of the stomach and bowels, and of the doctrine of irritation. The physiology adapted to this interesting system has been already given to the American public, in a translation. The gastro-enteric diseases are well taught in our clinical seminaries; and on the subject of irritation, we expect to be able to offer a brief sketch in our next number, in a review of two late works treating on that subject. It is not necessary, we apprehend, to dilate much upon a theory, as we doubt not the grand outlines will abundantly serve to show the bearing, direction, and form of the new doctrine: which can only be useful, in proportion as it is chastened, and adapted to nature, by the observations of a practical observer.

We have thus far, as it is our responsible duty to do, written what we considered proper to address to those of our countrymen who have honoured us with their subscriptions. To our transatlantic readers it may be permitted to observe, with all due respect to illustrious names, that we Americans do not concede the exclusive appellation of "physiological" to the followers of Dr. BROUSSAIS. To the great majority of the physicians of our country, viz. the pupils of our venerated RUSH, it is a familiar principle, long acknowledged and acted on, that diseases are not to be prescribed for from their names or definitions, but from the physiological condition, or as he so frequently reiterated it, "the state of the system." To equalize excitement, and to raise or depress it to the natural standard, were the great practical rules which he applied to all the forms of disease which were then understood. The real additions to these principles, which we apprehend to have been made in Europe, and particularly in France, consist in various, and invaluable extensions of the methods of distinguishing derangements of the organs by the external symptoms. We are not undertaking to set forth the claims of this distinguished physician to remembrance—they would require much space and an abler pen—but merely to assert for him the establishment of physiological principles in America.

13. *Paralysis of the Insane.*—Dr. F. L. Calmeil, *first internal pupil* of the lunatic hospital of Charenton, at Paris, has prepared a volume of considerable size on the above affection; one which is but little noticed and less analysed among us. The reviewer in Johnson's journal, for April, (p. 362.) states, that a great number of the unfortunate objects alluded to are affected, in one shape or other, with paralysis. We should hardly have been able, from observation in our institutions, to use such strong expressions, but we have frequently seen the occurrence.

Our readers may, perhaps, be prepared, from the review of Lallemand and Bouillaud, contained in our present number, for the expression of the opinion that almost every paralysis of severity, not traceable to the local injury of a nerve, is owing to some organic change produced in a portion of the brain. Dr. Calmeil conceives himself to have established that palsies are very frequent in the insane, that the organic læsions which give rise to them are almost always situated within the brain, and that they are most generally of the following classes: viz. chronic inflammation of the cerebrum, especially on its surface, and the meninges; cerebral or meningeal hæmorrhages (apoplexies); sanguineous congestions; softenings of the brain or spinal marrow, and encysted abscesses. Tubercles and hydatids occur in the brains of maniacs; but they are rare.

General paralysis of the insane most usually commences by an impediment in the speech, unaccompanied with deviation of the tongue to either side. After some time, follow slowness and hesitation in locomotion, a stooping, or swinging gait, stumbling, insensibility to pinching and to odours, involuntary escape of the fæces and urine, and sometimes extreme costiveness. The general health appears but little affected; the tongue is moist; the appetite considerable; the digestion easy; the heat of the skin natural, and the pulse moderate and regular. At length, the animal powers waste away so far that almost nothing remains but a species of vegetable existence, in which food is only swallowed when administered by force; scarce the least vestige of sensation or intelligence remains; the digestion languishes; the body emaciates; sloughs form in the parts subjected to pressure; dropsical swellings take place in the scrotum, feet, and abdomen; disease often supervenes in the lungs or the gastro-enteric apparatus, and the patient expires.

The morbid appearances in the head, are, unusual vascularity of the cranium; injection of the dura mater with blood; vegetations of the pia mater; (rather a rare occurrence, generally found about the edges of the fossa Sylvii); serous effusion into the cavity of the arachnoid; (almost an invariable occurrence, generally extensive, but mostly accumulated at the basis of the brain; mostly limpid, but occasionally turbid or sanguineous;) concretions of coagulating lymph in the arachnoid; false membranes between the coats of that membrane; exsiccated effusions of blood; in one case an effusion of blood into the cavity of the arachnoid, almost universally;

œdema beneath the surface of the arachnoid, raising that membrane from the convolutions, and very much resembling a jelly, till the liquor is seen to escape freely from a single orifice; thickening and injection of the arachnoid and of the pia mater; adhesion of the latter to the cortical substance; softening of the surface of the brain; an erysipelatous, rosy, lilac, violet, or deep red hue of the cortical substance, accompanied by injection; in some cases hardening of the corpus callosum; frequently effusion in the ventricles, and generally in the spinal cavity; and, each in a single case, an apoplectic cicatrix, an ulceration, and a tubercle.

The paralysis was chiefly seen in cases of *dementia*, which might exist separately, or be combined with *monomania*, or general *mania*. Its *duration* was from eight to eighteen months; and life was at all times very precarious; a termination sometimes approaching with only a few days warning, in the midst of apparently a tedious case; while, at other times, an unexpected improvement would grant a reprieve for a more or less long period. Messrs. Royer Collard, and Esquirol, from whose practice the author has collected his valuable work, consider the disease as totally incurable. Of male lunatics, one in fifteen were affected with general paralysis; of females, one in fifty. Our author never saw this combination in persons under thirty-two years of age; from thirty-two to forty, he saw fourteen cases; from forty to fifty, seventy; from fifty to sixty, nine. The persons most subject to it were military men, particularly the soldiers of Napoleon! which the author ascribes to hardship, excesses, and mental and moral excitement. Next in frequency come the custom-house officers, including excise-men and tide-waiters. Exposure to heat was visibly a cause; as among founders, cooks, bakers, glass-makers, &c.; also excesses in the passions, and in wine, venery, spirituous liquors, &c.

Abstraction of stimulation, and a mild antiphlogistic treatment, were practised, and are recommended. No success is claimed; but the author flatters himself that *incipient* cases may be recovered. At any rate, he thinks the evidence conclusive against the stimulating treatment, including electricity, and nux vomica, or its essential principle, strychnine.

14. *Martinet's Manual of Pathology* has been translated by a Mr. Quain, and published in London, highly recommended by the reviewers.* It is a catalogue, 1st, of the rules and methods of examining diseases during life; 2nd, of the characters of diseases drawn from the symptoms, considered seriatim; and 3rd, of the morbid appearances found in each after death. It is merely a manual, as its name imports; but is admirably adapted to introduce the reader to French pathology. We can also recommend it as an excellent book from which to learn medical French, still speaking of the original. Mr. Quain's translation is highly spoken of; and is, we believe, for sale in this city. We have not seen it.

15. *Pathology of the Nerves of the Face.*—Mr. Charles Bell has published an interesting series of cases illustrating his curious researches into the functions of these nerves. We have not space to analyse them, further than to say that they go very far to confirm the views which he has already published on the subject. They are analysed in Johnson's Review for April.

16. *Erysipelas.*—Mr. Arnott, of London, has inserted a paper in the London Medical and Physical Journal, in which he conceives that he has given good grounds for the following proposals and inferences:

1. That the term erysipelas should be restricted to that febrile affection of the system, accompanied with inflammation of the integuments of the *face*, to which it has most usually been applied; and, that until we have

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* Med. Chirur. Rev. April.

better evidence for so doing, the expressions erysipelas and erysipelatous should not be applied to affections of the skin in other parts of the body.

2. That the term erysipelas phlegmonodes should be abandoned as unnecessary, as well as inaccurate, and applied to dissimilar morbid conditions.

3. That inflammation of the cutis of the extremities and trunk, it matters not from what cause, or however extensive, should be designated simply as such, to the exclusion of the terms erysipelas and erythema, as improper and unnecessary.

4. That inflammation of the cellular substance should be described as such, and by name; and, as no necessity exists for the addition of the term "diffuse," so long as we possess the adjective "extensive," that the employment of the former word should be abandoned.

Lastly. That aponeurotic and subaponeurotic inflammation should likewise be withdrawn from its erysipelatous disguise, and appear in its own proper character and name.

To support these propositions, which are, in fact, the expression of a set of pathological opinions, Mr. A. inserts the particulars of three cases.

The mother of a family died of inflammation of the pharynx, terminating in mortification; and the husband and daughter were subsequently affected with erysipelas of the face, and inflammation of the throat.

From these narratives, our author proceeds to an analysis of different publications on these subjects by Drs. STEVENSON, NELSON, DUNCAN, WELLS, DICKSON, and BUTLER, and Messrs. LAWRENCE and BLACKETT; in which he shows, we think successfully, as indeed has already been the inference to which many have inclined from the perusal of a part of their works, that diseased processes of very different natures have been included under the appellation of erysipelas; and that it is better to name each of them *physiologically*, as many moderns would say, according to their situation and real nature, rather than by an abstract name, implying a common but ill-defined existence in them. We did not suppose, however, till we recently learned it, that any one confounded simple inflammation of a fascia, or of the cellular substance, as after bleeding, with erysipelas; and only imagined that it was common to neglect, or consider as a mere extension, complication, or constituent part of the disease, the occurrence of the latter in a case which already presented a vivid redness on the surface. Again, why the term erysipelas should be confined to the affection of the face, and to one co-existent with sore throat, we see no sufficient reason. Certainly, we have often seen it arise from an internal cause, extend beyond the face, and exist without any sore throat. Mr. ARNOTT also argues in favour of a contagious quality in this affection; and he has undoubtedly furnished us with several groups of cases, including his own, and those of authors, in which one seemed to follow the other in families. Whether this is to be regarded as evidence of contagion, (a mode of reasoning not uncommon among the English,) or whether, in a disease which so constantly occurs without any intercourse among the sufferers by it, it may be referred to a similarity of the unknown morbid causes acting on the individuals of a family, as in the case of the Plymouth dock-yard disease, must be left to the judgment of the reader.

17. *On Making Anatomical Preparations in Hot Climates.*—Numbers of our readers will recollect the bar which has been put in the way of the study of morbid and healthy anatomy by the heat of southern climates; a difficulty which has been particularly felt in the United States, where it has often crippled the exertions of the most enthusiastic and well instructed physicians. This is the more to be regretted, as, owing to the previous operation of the same cause, the diseases of hot climates, so important to

all commercial nations, and to none more so than to the United States, have never been sufficiently studied in dissection. Numerous autopsies are to be found; but the reflected light which is obtained by the competition of emulous investigators, and by reiterated inquiry, cannot be said to have thrown its lustre on those various and terrific maladies.

Dr. **John Davy** believes, (Ed. Med. and Surg. Journal, for April,) that preparations may be made, by using proper precautions, in the hottest parts of the world. "The average maximum of the highest temperature in the hottest seasons, even in intertropical climates, is from 80° to 90° Fahrenheit;" and at this elevation of the thermometer, the changes which take place in animal matter, do not differ in nature from those which occur in more temperate regions, but only in degree, taking place with twice or thrice the celerity. To meet this rapidity of decomposing causes, Dr. **Davy** proposes an equal rapidity in dissection and preparation, together with neatness, and an entire finish of the preparation at once. He strongly urges the importance of completing the separation at the first effort, as a means of preventing fœtor, decay, deformity, and disgust at returning to it. When unfinished preparations are thrown into jars together, or crammed into vials too small for them, besides the additional chance of decomposition thereby incurred, they lose their shape, and become contracted and wrinkled. Experience has shown him too, that when articles are laid by for future completion,—this from postponement becomes a disgusting task, and they are finally thrown away.

Dr. **Davy** macerates all articles which do not contain much fluid, in strong spirits, immediately on their removal from the body, and not in water. He states, that inflamed mucous membranes, thus treated, will retain their red colour, the blood coagulating in the vessels. Parts from which blood or copious mucous matters must be removed, are to be soaked in water, renewed very frequently, or in spirit and water, or saturated brine. Dr. D. finds that a navy surgeon, or other medical man in travelling engagements, may, notwithstanding the above remarks, collect a large number of morbid preparations in one or two large jars; but they must be displayed and arranged exactly as they are to remain on the shelf, and each attached to a float of cork; or, if lighter than spirit, to a small piece of lead, while crowding is prevented by using threads of such different lengths, as will leave each article sufficient room to preserve its shape. In this way Dr. **Davy** evidently means that they may be sent beyond sea. The jar is to be carefully stopped, without any connexion between the preparations and the neck of the vessel; and the cork or ground stopper is to be tied over with a piece of bladder, oiled, and to be carefully preserved, not only from rats, but from cock-roaches, which will devour the membrane thus used. Dry preparations require no other precaution than entire desiccation, and repeated varnishing; but the anatomist is very apt to overrate the drying power of a tropical atmosphere. If the wind come over an extent of land, and assume the well known character of the Harmattan, exposure to it will be sufficient; but sea breezes are commonly loaded with moisture, and preparations will not dry in them, but decay rapidly. In this case they should be exposed to the rays of the sun, or to a fire. After varnishing, it is necessary to wrap them in paper, dried with equal care, and to enclose them in a tight box, to exclude insects.

18. *Yaws and Small Pox communicated by the same Inoculation.*—A case is mentioned by Dr. **James Rankine**, (Ed. Med. and Surg. Journal,) on the authority of Dr. **Quier**, in his paper on the disease first named, which we have not space to analyze.

IV. THERAPEUTICS, MATERIA MEDICA, AND THE PRACTICE OF MEDICINE.

19. *Tobacco in the Painters' Colic.*—Dr. Graves, in the Dublin Hospital Reports, vol. IV. recommends the application of tobacco stupes to the belly, till the peculiar effects of the drug are manifest in the system. This form of administration he prefers to that by injection, as equally efficacious, less rapid in action, and capable of being left off more easily before any alarming symptoms appear. Their employment is to be followed up by the usual cathartic medicines, especially pills containing croton oil. —*Edin Med. and Surg. Journ. April,* 1827.

20. *Treatment of Encephalitis, Tremefaciens, or Delirium Tremens, by Depletion.*—Professor Speranza, in his Medico-Clinical Reports of the hospital at Parma, disapproves of the method of treatment by stimulants and liberal doses of opium, pursued by Saunders, Sutton, Rayer, Perrone and others; but on the contrary approves of the plan of Frank, by general blood-letting, by local bleeding with leeches applied to the head, by cold applications, as ice or cold water to the scalp, and by the use of purgatives. This practice is conformable to the experience of Pinel and Esquirol of Paris, and Hope and Thompson of Edinburgh.—*Ibid.*

21. *Bleeding practised in the Cold Stage of Intermittent Fever.*—Dr. Mackintosh, in a report of cases of intermittent fever, published in the Edinburgh Medical and Surgical Journal, states his having used the lancet with success in the cold stage of intermittent fever. He submitted himself to the experiment in the first instance, disregarding altogether the force of authority upon this subject. Bark and all the usual remedies had failed. After a detail of the facts, the author draws the following among other conclusions: That bleeding thus used will sometimes cure the disease; that, in every case in which it has been tried, it has cut short the cold fits, and prevented the subsequent hot and sweating stages of the paroxysm; that the remedy promises to be most serviceable in severe autumnal intermittents, and more particularly in the pernicious and malignant fevers, as they are termed, of Italy, Holland, and other marshy countries, which are well known to be very fatal under the ordinary treatment; that it may be used with safety in any climate, where the cold stage continues long and threatens danger; that bleeding in the cold stage is at all events more successful than in the hot stage, or than in the intervals; and finally, that the practice may be adopted in the first stage of all fevers, and probably will be found useful by surgeons in concussion of the brain.

While we agree with Dr. Mackintosh in the belief that "Cullen's system has been a great bar to all improvement in medicine, and is the principal cause of the backward state of pathology in this country, when compared with the strides made in that department by our professional brethren in France," we are not prepared to adopt his practice of bleeding in the cold stage of intermittent fevers. It has, we know, had its advocates among many physicians of the Rush school in the United States, but the success has not been such as to ensure our confidence, or, speaking less equivocally, to remove our fears of this plan. We remember very distinctly, before the study of medicine had engaged any portion of our time, to have heard a physician of ripened age, tell a friend, of his narrow escape from death, in consequence of his having been bled, at his own desire, during the cold stage of an intermittent fever. As regards venesection during the hot stage, we can positively aver, in opposition to the opinion of Dr. Mackintosh, that the first instance in which we made use of the lancet in intermittent fever, was during this period, with the effect of preventing a recurrence of the paroxysm. Similar success under like circumstances has attended the practice in some other cases in which we have had recourse to it. We moreover doubt very much, whether the surgeon, who unites pathological research to experience, will approve of venesection in the first period of concussion of the brain.

22. *Salivation speedily produced by inhaling Mercurial Vapour.*—The London Medical and Physical Journal for March, contains an extract of a letter from Capt. Sykes of the Indian army, dated Poona, August 28th, 1826, giving an account of a salivation produced by the disengagement of mercurial vapour from a retort, which had been exploded during the process for the distillation of quicksilver to which lime had been added. There were six persons in the room and adjoining office at the time, of whom two complained of tenderness and pain under the jaws, and soreness in the joints, after the lapse of two hours; a third was ill and unable to move after three hours. The next morning at ten o'clock, the whole six were suffering from sore mouths; one of them a European writer, whose system had resisted forty grains of calomel, had been spitting all night. On the twenty-second day from the occurrence of the accident, all were well except the man who had supplied the furnace. The Captain adds, "Our medical men produce salivation in twenty-four hours by fumigation, and I have heard of a recent instance of salivation being produced in seven hours by fumigation."

"My Shastree, a learned Bramin, asserts, that the practice of producing salivation by means of mercurial vapour inhaled by the lungs, has been used by the Hindoos from time immemorial. Beeswax is melted, and spread over strips of thin cotton cloth; an equal quantity of cinnabar in the form of powder is spread over the waxed strips of cloth, which are then rolled up in the shape of candles. The person to be salivated is seated on his haunches on the ground; a blanket is thrown over him; the lighted cinnabar candle is placed under the blanket, so that he inhales the mercurial vapour. A finger's breadth of the candle is burnt to salivate a boy; three or four fingers are required for a lad, and six for a robust man.

"When I expressed some doubts of this practice being of such antiquity among the Hindoos, my Shastree pointed out a passage in the 'Shaarungn Dhur,' an ancient Shanscreet work, in which the process is described."

The readiness with which the system is affected by means of mercury inhaled, is correspondent with our knowledge of the rapidity of absorption from the mucous membrane of the lungs, as shown in the experiments of Meyer and others.

23. *Ascites cured by the Injection of the Vapour of Wine into the Abdominal Cavity.*—At the meeting of the Royal Academy of Medicine in Paris, on the 9th of January last, M. L'Homme, a physician of Chateau Thierry, read a paper bearing the above title. His patient, the subject of the treatment by injection, was forty-nine years of age: he had enjoyed good health until his thirty-eighth year, when he was seized with hæmatemesis which lasted four days, and on its subsidence, he began to suffer from enlargement of the abdomen. He had taken various medicines and been tapped six times, when Dr. L'Homme was consulted on his case. A trial was then made of all the customary remedies in such a disease, viz. drastic purgatives, diuretics, the preparations of squills, digitalis, and nitre, &c. Dr. L'Homme, having read in the Annales de la Médecine Physiologique, (Broussais') an account of two cases of abdominal dropsy cured by an injection of the vapour of wine into the peritoneal cavity, resolved on trying the remedy in this instance. He was the more encouraged to do so from the good general health of his patient, and the apparent freedom from

visceral inflammation. Sixteen repetitions of the vapour injections were practised, which were unaccompanied by pain or any inconvenience except a temporary distention of the abdomen. For about two months complaints were made of occasional dull colicky pains, which were not, however, sufficiently intense to require medical assistance. After that period the ascites entirely disappeared, and there has been no return of the disease during the two years that have since elapsed. The vapour was drawn up by a syringe applied to the end of a funnel, which was placed inverted over a coffee pot containing the wine in ebullition, and then injected through an opening in the abdominal parietes made for the purpose. Dr. L'Homme tried the plan on another patient who had been labouring under the disease for twenty-nine years, but without success. There was, however, no sinister or unpleasant occurrence following the use of the vapour.—*Archives Gen. Février.*

24. *Cerebral Inflammations.*—M. Costa, in a work entitled *Theoretical and Practical Reflections upon the Treatment of Cerebral Inflammations*, disapproves of the practice of applying ice or cold water to the head in these diseases, and reprobates also the use of blisters to the cranium. His plan is to direct the head to be shaved, and a great number of leeches to be applied along the sagittal suture, and especially at its posterior end. The suture is likewise to be covered with emollient cataplasms, to be renewed from time to time, and general bleeding, if necessary, is to be had recourse to. M. Costa founds his practice on his belief in the circumscribed extent of inflammation of the arachnoid membrane and of the brain, and of this being generally at the anterior portions. By the application then of leeches on the sinciput, the parts beneath are more directly disgorged; since the superior longitudinal sinus, the recipient of all the veins of those parts of the encephalon, is thereby more immediately acted on. When cerebral inflammations are sympathetic of gastro-enteritis, which is most usually the case in children, we are advised by our author to combat this latter disease, unless the encephalitis become predominant, and then the treatment will be the same as above mentioned.—*Archiv. Gen. Jan. et Fev.*

While we receive with suitable acknowledgments the advice of M. Costa, to employ leeches freely in the manner directed by him, we must, for the present, beg leave to retain cold applications as a useful therapeutical agent, and rather an adjuvant to, than militating against, the benefits of general or topical depletion, and the good effects of which singly have been sanctioned by no little experience.

25. *Balsam Copaiva and Cubebs administered per anum as a Remedy for Gonorrhœa.*—Dr. Velpeau, in the January number of the *Archives Générales de Médecine*, after premising the difficulty which is experienced by many persons in retaining on their stomach the balsam or the cubebs, especially after these medicines have been used for any length of time, advocates their introduction into the rectum. From the month of July, 1826, to the present date, he has pursued this method of employing the balsam in twenty-two cases of gonorrhœa. The dose was from two to four drachms in a suitable vehicle, to the extent of four ounces, to be repeated daily for eight days if necessary. The following are the conclusions at which Dr. Velpeau has arrived:

The balsam copaiva administered per anum diminishes almost invariably the gonorrhœal discharge in both sexes. In many instances it completely stops it at the end of four, five, six, seven or eight days: more frequently it merely reduces it to one third of its usual quantity; sometimes only to one half; and as a general rule after the eighth or tenth dose, its action becomes of no avail, if it have not previously proved completely efficient in the cure. He subsequently recommends a gradual augmentation of the dose; so that ning with two drachms, he gives on the next day four drachms, and so ntil in some subjects who tolerate the medicine without difficulty, drachms are taken at a dose. The best vehicle is gum water, to which aum may be added, the better to insure its retention by the rectum.

Velpeau has used the cubebs in a similar manner, and with the ccess. Of four persons in the first stage of gonorrhœa, (the first it,) only one was promptly cured. Five who had suffered for a long ıder the malady, were entirely relieved. In conversation with Drs. Guillon, and Defermon, respectively, Dr. V. has learned that each e gentlemen had employed the balsam copaiva in the manner above ,ed; and, with the exception of Ribes, with equally happy results. Guerin de Mamers is preparing a work on this subject. Reference practice may likewise be found in some English journals.

Cancer Cured by Compression.—Dr. Recamier gives the detail of cases of cancerous tumours of the mammæ, in which a uniform pres-continued for a length of time by means of bandages and agaric over reasts, accomplished a complete cure in some, and in others was attended a notable melioration of the disease.—*Revue Médicale, Janvier*, 1827.

Savin in Excessive Uterine Discharges.—Dr. Gunther, of Cologne, has eded in curing two women affected with metrorrhagia, by the ad-ration of savin in scruple doses, four times a day. *Ibid, after Hufe-Journal.*

Epistaxis cured by the Patient snuffing up Powdered Gum Arabic.*—** **was the method recommended by Dr. Brunner, to a young man who ıffered three days from epistaxis, which during that time had proved ctable under all the usual remedies.—*Ibid.

***Salivation cured by Calomel.*—The patient in this case was of a ca-ic habit of body, with face œdematous, but no pain. The complaint ıttributed to sleeping near a damp wall. The customary means of re-ıiling, Dr. Gumper administered calomel in doses of one to two grains, or four times a day for six days, with entire success.**

Sal Ammoniac.—Dr. Arnold, of Heidelberg, published last year a dissertation on the properties and employment in disease of the hydrochlorate of ammonia. Administered to animals in large doses, this salt causes death. Its first action, according to Dr. A., is on the spinal marrow, and hence the irregular and vehement action of all the organs under the control of this nervous centre; since, independently of the affection of the limbs, the respiration was very irregular, slow, and deep, the pulsations of the heart strong, and perceptible through a great extent of the chest. From this disturbance in the circulatory and respiratory functions, ensue a defective elaboration and oxygenation of the blood; so that death is brought about as much by the prostration following the great irritation of the nervous system, as by the imperfect oxygenation of blood in the lungs.

As a remedy in disease, though its use demands caution, it will prove unquestionably serviceable on many occasions. Among the cases in which it is thought to be more particularly indicated, we find deranged secretion and excretion, especially of the mucous membranes, of the lungs, intestinal canal, bladder, and genital organs, as in mucous catarrh, diarrhœa, catarrhus vesicæ, gonorrhœa, untractable to the balsam copaiva and cubebs, and leucorrhœa. In the *phlegmasiæ*, so called, it is given with most advantage after the more violent inflammatory symptoms have been subdued by bleeding: it then seems to lower excitement by a diminution of the plastic or coagulating power of the blood. In consequence of its direct tendency to produce inflammation of the stomach, this salt is emphatically contraindicated in all those diseases in which there is a true phlegmasia of this viscus. In croup it may be given at the same time with calomel; and it is recommended also in the catarrhal stage of hooping cough, and in the *anginose* affections.

In *hepatitis* we are enjoined to substitute, as speedily as possible, the sal ammoniac for mercury; always holding in mind the state of the stomach. Indurations of the prostate gland, and of the ovaries and uterus, have been cured by this medicine. It is also recommended in scrofula, though here the preferable mode of using it is by bath.

31. *Carbonate of Iron in Neuralgic Affections.*—Under this head we find copied into the Medico-Chirurgical Review, from No. 174 of the Lancet, an account of two cases: one of neuralgia of the lower extremity from the toe to the groin, and across the lower part of the abdomen round to the loins, in a female; the other presenting some of the phenomena of angina pectoris. Both were cured by the administration of the carbonate of iron in doses of *half an ounce* three times a-day. It seems now to be conceded that this medicine may be given in much larger doses than have usually been prescribed. For ourselves, we have long been satisfied on this point. It is now nine years since we administered, by which we mean actually mixed up with syrup, and saw swallowed, half an ounce of the carbonate of iron by a sea captain, then under our care for tenia. On referring to our notes of this case, we find the only observations made, were, that the bowels were once moved on the day following the evening on which the medicine had been taken, and that *the pulse was much weakened, an effect this which was of invariable occurrence during the period of the use of the carbonate.* We began it in a dose of a scruple; and in the course of a week, increased it to half an ounce. To the same person we have given a drachm of the carbonate, and an equal quantity of the sulphate of iron at a dose in the evening. The bowels were once moved during the following day; the pulse was full, but without hardness or frequency.

32. *Insufflation of the Lungs, a Cure for Asthma.*—In the first volume of the Journal des Progres des Sciences et Institutions Médicales en Europe, en Amerique, &c., the appearance of which we hail as promising to be a valuable contribution to periodical medical literature, we find copied from the *Antologia di Firenze*, an account of the above-mentioned means against asthma employed by Dr. FRANCESCO CHIARENTI. Taking the hint from the relief afforded to the asthmatic by their exposure to fresh air, especially a current of wind, the Italian physician, himself a sufferer from the disease, had recourse to pulmonary insufflation performed by a common bellows, the muzzle being introduced into the mouth. He had the bellows played on him for a considerable time, and with much force, so as to introduce a great quantity of atmospherical air into the lungs. By this simple process he can now overcome, in a very brief period, the most violent fits of asthma. The trial of the remedy on others was equally successful as on himself; and from a number of facts, the more detailed history of which he promises hereafter, Dr. CHIARENTI is of opinion, that insufflation, practised in the above manner, is not only adequate to causing the prompt cessation of a paroxysm of asthma, but still more to accomplishing a radical cure of the malady, unless when it arises from organic alterations of too deep and enduring a nature.

33. *Belladonna employed with success in Intermittent Fever.*—In a pernicious intermittent fever, accompanied by cephalalgia or delirium, the first paroxysm of which had been rather exasperated than enfeebled by the sulphate of quinine, the extract of belladonna in a dose of twelve grains, administered just before its expected return, prevented the fourth paroxysm, and the patient was soon restored to health. Dr. DUCROS, of Marseilles, the prescriber of the medicine, and reporter of the case, adds, that on fresh exposure to the marshy banks of the Rhone, the disease returned,

and was again cured by the extract of belladonna.—*Journal des Progres des Sciences et Institutions Médicales, &c.*

34. *Chronic Ulcer in the Stomach.*—A married female, so corpulent that she thought herself dropsical, and who appears to have been thought so
er physician, had complained of pain occasionally at the navel for
previously. This, however, did not prevent her attendance to do-
affairs, and her spirits were good, as was her appetite. On the 16th
ust 1826, after eating a very hearty dinner, she was suddenly taken
h severe pain in the umbilical region, attended with exquisite ten-
ss of the part. The pulse was but little affected. After taking about
drops of laudanum, she vomited a quart of fluids and half digested
ances, but without any material relief. Opium in considerable quan-
, venesection, blisters, and other remedies, were employed in vain,
she expired in thirty hours from the attack.

n dissection, an ulcer was found near the lesser curvature of the sto-
n, about two-thirds of an inch in diameter, and partly surrounded in-
lly with thickened white and shining edges. This had opened and
itted the contents of the stomach to pass out into the abdomen, there-
ccasioning the fatal catastrophe. The heart, as well as other parts
e body, was loaded with fat.—*London Med. and Phy. Journ. Jan.*

. *Extract of Balsam Copaiva in Gonorrhœa.*—Mr. THORN, in an essay,
tly published, on the Treatment of Gonorrhœa, recommends the
e-mentioned preparation (the resinous extract deprived of the essential
s a remedy for the cure of this disease. Medical men have generally
afraid to exhibit the bal. copaiv. in the second or inflammatory stage,
e first stage (that occurring within twenty-four hours of the first ap-
ce of the symptoms) has often elapsed before they are consulted.
, the first two stages, that the extract of copaiva has been found
dvantageous. Mr. THORN has related one case where the disease
ured in a couple of days, when the medicine was given in doses of fif-
grains to a scruple thrice daily. In the inflammatory stage, where there
e symptoms indicative of approaching swelled testicle, he has not hesitated to give the extract in doses of ten or fifteen grains thrice a day. In no case has he found it to produce any other effect than that of relieving the scalding, and frequently doing away with this symptom in a short time. The medicine should, of course, be continued for a few days after all the symptoms are gone. Mr. T. very properly embraces the depletory treatment with cooling regimen with the exhibition of the medicine.

In the third stage, that of gleet, too often dependent on some alteration of structure in the mucous membrane, the extract of copaiva has not proved so useful. Our author speaks favourably of an injection composed of one drachm of extractum tormentillæ to six ounces of water.—*Medico-Chir. Rev. April.*

36. *Pleurisy and Abscesses after Surgical Operations.*—M. ALF. VELPEAU, in the Revue Medicale for December, 1826, has furnished some interesting cases of death occurring after injuries of a limb, or part in which amputation or a surgical operation had been resorted to. He sums up as follows:

1. That those who die of acute diseases succeeding surgical operations, or profuse suppurations, generally fall victims to pleurisy and to the formation of abscesses, more or less numerous in the viscera.

2. That the kind of pleurisy, hitherto undescribed, is of a peculiar nature, and might be denominated the "pleurisy succeeding operations."

3. That this disease differs from simple pleurisy, in the latency of its march, the rapidity of its progress, and the almost invariable certainty of its fatality.

4. That the purulent depots above described, never acquire a large

volume, but are circumscribed, and spherical collections of matter, concrete or fluid.

5. That they are more especially developed in the liver and lungs, where they may give rise to a species of tuberculous affection.

6. That the pleurisy and formation of depots are rarely accompanied by characteristic local symptoms, sufficient to give notice of their existence.

7. That these said inflammations and depots are manifested under the influence of absorption of pus, and of its transport into the current of the circulation.

8. That general blood-letting appears to favour the development of the maladies in question.

9. That finally, where the existence of the malady was unequivocal, the march of the disease has hitherto been unchecked by any medical treatment employed.

Admitting as we unhesitatingly do the facts, and Dr. Velpeau is not the first to notice them, we are far from giving our assent to the explanation furnished by this gentleman, viz. that the unfavourable termination depends on the absorption of pus; which seems, however, to have met with the approbation of our respected contemporary of the Medico-Chirurgical. That the fluids circulating in the vessels play an important part in the drama, must be acknowledged; but if "deleterious fluids are taken up by the absorbents, in cases where parts do not heal kindly, after wounds and operations," we would ask whether these poisons should not more readily and naturally display their pernicious operation on the brain and nervous system generally, and also on the digestive apparatus, than on the pleura and lungs, or liver? Is it by the absorption of ill conditioned pus, that we explain the diseases of the lungs or liver which ensue after hastily repelled eruptions, or the drying up of a long discharging issue, or the radical cure of fistula in ano, or the sudden disappearance of rheumatism, or gout of the extremities, or injury of a limb without suppuration, or where the wound has been cicatrized? The assumption of metastasis does not, by any means, imply a credence in the translation of a morbid or peccant matter. Sympathy, with all the vagueness of ideas so often attached to the word, is just as significative and explanatory of the diseases subsequent to injuries and surgical operations, as the absorption of pus. We have said that M. Velpeau is not the first who noticed the facts connected with this subject. That distinguished surgeon Dupuytren did, to our knowledge, seven years ago direct the attention of the students attending the Clinic of the Hotel Dieu, to the frequent occurrence of pleurisy after amputation of a limb, especially in scrofulous habits, in whom there had been a suppurative discharge from the diseased member. To prevent such a melancholy event, he was in the practice of applying a blister to the inside of the arm, so as to establish a free discharge before the operation, and take off the onus from the chest. He did not fear the absorption of pus and its deleterious influence, but desired, like an experienced pathologist, to substitute one action or drain, for another action or drain; in fact, to create an organ of secretion in the place of that removed by his knife. In the examination of this question, we ought to learn distinctly what were the temperaments, predispositions and former diseases of the victims to this new kind of pleurisy, and their accidental exposures in the hospital to currents of air, so frequent a source of this malady in such establishments.

37. *Acetate of Lead as a Sedative in Cancer.*—A number of females affected with incurable and most painful cancers of the rectum or uterus, have had their sufferings greatly mitigated by warm baths, in each of which was dissolved an ounce of acetate of lead.

38. *Remittent Broncho-Encephalitis.*—Under this head M. Broussais has

related a curious case in his journal, (*Annales de la Med. Physiol.*) for October last. The patient, a young man, was attacked with symptoms indicative of inflammatory action in the bronchial membrane, and also in the brain, with violent exacerbations; during which the cough was incessant, and the cephalalgia greatly aggravated by the successions of the cough. After three bleedings from the arm, and several applications of leeches to the temple and neck, the disease took on a decidedly periodical character, and then the sulphate of quinine was administered, with an allowance of light nourishment, especially as no symptoms of gastric irritation were present. The appetite was good and the tongue clean. The medicine but slightly mitigated the paroxysms of coughing; and presently the skin became permanently hot and dry, the bowels irritable, and the embarrassment of the chest increased, the expectoration being viscid and brought up with difficulty. The sulphate of quinine was discontinued, and leeches were applied to the lower part of the trachea. The strict antiphlogistic regimen was again adopted. This plan was crowned, with success. "What," says **Broussais**, "would have been the result if we had persevered with the febrifuge, because the disease assumed a periodical character? The patient having lost much blood, the inflammation might not, perhaps, have assumed an acute character; but certainly a chronic gastro-enteritis would have been established, and possibly the bronchial inflammation would have been converted into suppurative pneumonia."—*Medico-Chirur. Rev. April.*

39. *A Case of Abdominal Tumour, complicated with Ascites, treated by* *rs Doses of Hydriodate of Potassa.* By **Edward Jenner Coxe, M. D.** atinued from page 397 of the last number of this Journal.) Before proling to give the additional particulars of this case, it may be proper to ect an error in the first communication. At page 397, hydriodate of ne is printed in two places instead of hydriodate of potassa.

he patient was again tapped, March 20th, 1827; and after all the water l been drawn off, the tumour in the abdomen seemed less hard than after e preceding operation, though no material difference was observed in its size. On the 24th, our patient again commenced taking the hydriodate of potassa ʒi. to ℥ij. of water, thirty drops three times a-day, to be increased ten drops each succeeding dose, beginning the increase on the 25th. From the 29th of March, until the 29th of April, twenty-eight drachms of the hydriodate of potassa in solution were taken by our patient; making together with the drachm previously prescribed, 1740 grains during a period of five weeks. As the medicine produced no effect whatever on her system, it was discontinued.

This medicine having been used with great success by some physicians in this country, and in Europe, the above case only proves that there are some peculiarities of constitution, capable of resisting the action of the most powerful remedies.

It may not be amiss to state, that the preparation of iodine used, was procured from Mr. **Durand** of this city; so that there can be no doubt as to its genuineness.

V. SURGERY.

40. "*Ligature of the Arteria Iliaca Communis at its Origin.*"—Professor **Mott** of New York has recently performed this operation for the cure of an aneurism, which occupied the whole extent of the vessel from within the

ligament of Poupart to some distance above the origin of the internal iliac artery. The tumour was of large size, protruding the belly considerably at the iliac region; the patient suffered most excruciating pain, which appeared to increase as the tumour enlarged. Dr. MOTT's incision extended from the external abdominal ring, to one or two inches above the crest of the ilium, dividing the tendon of the external oblique, and cutting through part of the origins of the internal oblique and transversalis. He then cautiously raised the peritoneum with his fingers, and succeeded in detaching it entirely from the tumour and vessels, without doing it the slightest injury.

"The artery was then examined, and the aneurismal dilatation was found to cease at about half the distance between the bifurcation of the aorta and the origin of the internal iliac branch. The ligature was passed from the outside of the vessel, by the aid of the excellent instrument devised by Drs. Parrish and Hewson, carefully avoiding the iliac vein. The protrusion of the intestines rendered this part of the operation the most difficult. After the ligature was passed around the vessel, the wound was held open in such a manner as to allow the medical gentlemen present to see, and satisfy themselves of the exact situation of the ligature, which was just below the bifurcation of the aorta into the primitive iliacs, and on the side of the sacro-vertebral promontory. The ligature was then drawn tight and secured; the pulsation of the tumour ceased; its size was much diminished, and the patient was relieved from the agonizing pain, previously unremitting.

"The wound was lightly dressed, and patient put to bed; the limb of the side operated on was cold, as might be anticipated; it was wrapped in cotton, and covered up to preserve the temperature until the circulation should be restored. To the great surprise and satisfaction of the surgeons, in a little more than half an hour after the operation, the circulation and temperature were entirely restored, and all fear respecting the supply of blood to the limb effectually dissipated.

"No untoward circumstance occurred after the performance of the operation. The patient complained of no inconvenience, except a peculiar sensation of fulness or tension in the limb, as if the small vessels had not yet become accustomed to their new office in sustaining the great mass of the circulation for the support of the member."—*Philad. Jour. of the Med. and Phy. Sci. for May.*

This is the second time, the bold operation of tying the common iliac artery has been performed; and in both instances by American surgeons. It was first resorted to fifteen years ago, by Dr. GIBSON, professor of Surgery in the University of Pennsylvania.

During the riots in Baltimore, in the year 1812, a man received a wound from a musket ball. As the accident occurred near to where the professor was standing, he promptly examined the wound which he found bleeding with great profuseness. He thrust his finger into the wound, and with it compressed the bleeding vessel, until the patient was carried home. From the direction of the wound he supposed the injured artery to be the common iliac near its bifurcation.

Though the patient was much exhausted by the hemorrhagy, yet he determined to make an effort to save him by securing the artery. The integuments of the abdomen above and below the wound were divided. "The peritoneum was next cut through, the intestines were turned to one side, until the artery was exposed, and slightly detached from the parts in its immediate vicinity." Ligatures were now applied around the left common iliac artery above and below its division. He next turned his attention to the intestines which were opened in two convolutions. The apertures in the intestines were drawn together with a fine ligature, upon the plan suggested by Sir ASTLEY COOPER. The clotted blood was removed from the abdomen, and the external wound closed.

As might be expected, coldness of the left limb followed the injury and operation, but the following day the temperature increased, and continued to increase, until it rose to nearly the heat of the opposite leg.

On the fourth day, symptoms of peritoneal inflammation supervened.

On the ninth day, the patient was seized with secondary hemorrhagy, which, at intervals, continued until the thirteenth day, when the patient expired.

On opening the abdomen after death, the folds of the intestines were united to each other in every direction by inflammation. "The upper ligature was found detached from the vessel, which projected and preserved the circle of its mouth entire." No union whatever had taken place between the sides of the artery. The impaired vitality of its coats, arising from contusion, was sufficient to prevent their union by adhesive inflammation.

The bullet was found imbedded in the upper part of the sacrum.

The result of this operation satisfactorily proved, as Dr. GIBSON very roperly stated, "that the largest artery in the body, except the aorta, may tied without cutting off permanently the supply of blood to the lower emity, inasmuch as the operation may possibly become necessary in *of aneurisms of the external or internal iliaca.*"

hen the embarrassing circumstances are considered under which this ation was performed, we cannot but admire the boldness and success which it was executed. See Dr. GIBSON's paper in the 3rd vol. Phiia Med. Recorder.

Laryngotomy or Tracheotomy.—In the April number of the London cal Repository, there is a short review of Mr. PORTER's work on the ical Pathology of the Larynx and Trachea, so as to determine in what "bronchotomy" ought to be resorted to. This book was published ublin, in 1826.

In *spasmodic* croup, it will be seldom necessary, as medical measures will generally be adequate, or the patient would perish before assistance could be rendered. In the *inflammatory* forms of croup, during the first stage, before effusion has occurred, "an incision will be much more likely to aggravate the disease than to relieve it;" an opinion in which we cannot concur, inasmuch as when respiration is impeded, and the inflammation confined to the larynx, this opening would certainly afford temporary relief to the breathing, allow the inflamed parts to be comparatively at rest, not to mention the loss of blood which would at least counteract the irritation of the incision. When the effusion of lymph has occurred, although it is very generally confined to the larynx alone, still, in a number of cases, the inflammation has commenced in the bronchial cells, and proceeded upwards to the trachea, in which case "an operation *could not possibly be of service;* and there is no mode of distinguishing accurately the original seat of the disease:" and whenever an adventitious membrane has formed, there is generally so much mischief already induced in the lungs, brain, &c. from engorgement, inflammation, or effusion, as to render success very problematical.

"At the *latter stages* of croup, it would be absurd to think that an operation could possibly prove beneficial, unless it be supposed that a wound of the wind-pipe could remove cerebral congestion; and, therefore, whenever convulsions have occurred, and the patient appears comatose or sinking, let no man undertake it, as a last resource, for it is a resource that will avail him little."

To these concluding remarks, we would direct professional attention; for we have reason to believe that the operation is often very empirically performed, and generally in these latter stages of croup. Let the surgeon remember the advice of Mr. A. **Cooper**, "never to do any thing without a *good* reason;" and let him ask himself distinctly what good can result from this incision. Recommending, therefore, Mr. **Porter's** observations in the strongest manner, we would nevertheless ask whether the surgeon should be deterred by the cerebral and pulmonary congestions from operating in those rapid cases of inflammatory or spasmodic croup, where there is *good* reason to believe that effusion had not ensued? We should answer negatively; for the want of air is the cause first of the pulmonary and secondarily of the cerebral congestion. Affording an access, therefore, for this fluid to the bronchial cells, will be a powerful adjuvant to the usual remedies for congestion, and may render them successful.

In laryngitis œdematosa, where there is an effusion of serum in the submucous tissue of the larynx obstructing respiration, laryngotomy promises much, and should be very early resorted to. The only difficulty respects the diagnosis. Sir **Gilbert Blane** says, it is characterized by a difficulty of deglutition, accompanying the obstructed respiration, but this is not sufficient.

In chronic cynanche laryngea, (including all those diseases which proceed very gradually and insidiously,) which has resisted appropriate remedies, or been injudiciously managed, bronchotomy is the only remedy. In a simple thickening of the mucous membrane of the larynx, it will often be completely successful, allowing free respiration, and permitting the inflamed parts to be *at rest*.

Since writing the above, we have received the *fourth volume of the Dublin Hospital Reports*, with which we have been politely favoured by the editors; and find, that Mr. **Francis White** has performed tracheotomy in a case of cynanche laryngea, accompanied with some effusion into the trachea, and which would perhaps contravene some of the advice above given. The case is so interesting, that we will furnish the most important particulars.

John Duff, aged thirty-three years, had sustained a severe attack of fever, followed by hoarseness, a hard dry cough, and soreness of throat. From exposure, these symptoms increased; and on the 10th of March, 1825, Mr. **White** found him labouring under all the symptoms of croup. He was bled freely, and leeched: calomel, antimony, and ipecac. in large doses, afforded little relief, even when his mouth was touched.

On the 13th, all the symptoms augmented, and suffocation was threatened, so that tracheotomy was the *last resource*. On dividing the rings of the trachea for half an inch, the air escaped with considerable force, and much muco-purulent matter was expelled. Finding a mere division not sufficient to allow a free discharge of the accumulated fluid, which was of a viscid ropy nature, Mr. W. *cut off lateral slips of the cartilages*, which leaving ample space, the patient breathed with freedom, and expectorated large quantities of mucus. A silver cannula could not be borne, and no instrument was required. The improvement was most evident, and the relief from impending suffocation immediate. A severe ptyalism ensued. In six days the wound began to close by granulations, which were, therefore, cut away. A leaden cannula was now tolerated.

On the 14th of April, the symptoms returned, and the tracheal opening had to be enlarged. Mr. W. "introduced an ivory cannula of a conical shape, and slightly curved, which filled up the entire opening, but was only admitted so far as to lie in contact with the edges of the tracheal aperture."

The patient (March 17th, 1827) has continued to wear this instru ment attached to a leathern stock, it being occasionally removed to wipe away the mucus. During the two years, since the operation was performed, the patient (a cabinet-maker) has worked at his trade without any inconvenience. The opening is callous and cicatrized. "The rima glottidis remains closed, yet not so much so but to yield to slight expiration, while he is incapable of performing the act of inspiration through the glottis, or of speaking without closing the aperture of the cannula with his finger."

42. *Angina Œdematosa.*—M. Lisfranc communicated to the Section of Surgery, a case of œdematous angina; a disease which, according to him, is characterized by the sensation of a foreign body, ascending and descending in the pharynx during inspiration, deglutition, &c. The patient was threatened with suffocation, but was relieved by Lisfranc, by scarifying the diseased part by means of a bistoury slightly curved, and covered with a bandage, excepting near its point, and afterwards making slight pressure to evacuate the fluids.—*Archives Générales for March*, 1827.

43. *Fracture of a Lumbar Vertebra with Paralysis.*—Accidents of this kind have been generally regarded as beyond chirurgical assistance. Lisfranc has reported a case to the Section of Surgery, of fracture of the third umbar vertebra, causing deformity, and accompanied with a paralysis of e abdominal muscles, rectum, bladder and lower extremities. A strict iphlogistic course was adopted; abstinence, frequent bleeding, general local, moxas, &c. On the fourth day, the bladder and rectum reco- d their functions; on the twentieth day, the patient could raise the right nd thigh; by the fortieth, this movement could be made with the left ; and *now*, after two months and a half of treatment, the patient can without assistance of a cane or crutch. Another case has also been l.—*Ibid.*

Fracture of a Cervical Vertebra by Muscular Contraction.—In the ives Générales for March, a case is recorded, as reported to the Royal demy of Medicine on the 8th of Feb., of a soldier, a good swimmer, who plunged head-foremost into the river Sambre, and was taken up in an insensible state by his comrades. On reviving, his limbs were found paralysed; skin insensible. The patient could not support his head, and experienced a severe pain at the posterior and inferior part of the neck. Priapism with frequent desire to urinate, was present. He stated, that immediately on plunging, he found the depth of water inconsiderable, and had suddenly thrown his head back that it might not be injured: from this moment, he lost all consciousness. The patient died, and on opening the body, a bloody infiltration was discovered around the cervical vertebræ; the spinal canal, *outside* of the dura mater, was filled with blood. This membrane as well as the spinal marrow was uninjured, while a transverse fracture of the body of the fifth cervical vertebra, a little below the middle, was noticed.

45. *Fracture of the Os Femoris by Muscular Contraction.*—In the Arch. Générales for March, this accident is said to have occurred in a man aged fifty-five years, infirm, and suffering, since 1816, with *convulsive motions from the use of nux vomica.* The bone gave way, while the individual was turning the leg inwards with his left hand.

46. *Fungus Hæmatodes at the Neck of the Bladder.*—Dr. Lazzerini of Florence has related a rare case of fungus hæmatodes, half the size of a pullet's egg, situated at the neck of the bladder, in a man sixty years of age. The disease had been mistaken for a varicose condition of the neck of the bladder, from the symptoms manifested during life, especially from the bloody evacuations following the introduction of the catheter. *Post mor-*

tem, it was found that the catheter had penetrated the tumour in five different places, which had been mistaken for "false passages" during life.

We extract this from the 2nd vol. of the Journal des Progres des Sci. Med., which has just been received.

47. *Empyema.*—M. Dufour punctured the cavity of the thorax of a child, four and a half years old, with effusion from a chronic pleurisy, with immediate relief and subsequent recovery.—*Journ. Univer. Jan.* 1827.

48. *Rupture and Re-union of Tendons.*—In the 3rd vol. of the Philadelphia Medical and Physical Journal, Dr. Horner published a case of ununited rupture of the tendo achillis, which he treated by means of the seton, on the plan recommended by Dr. Physick for artificial joints in the bones. The operation was performed in April, 1826, and in August following, the patient could walk without extraneous aid; the parts being reunited. That this practice is indeed applicable to tendons, as well as to bones, where union has not been effected, has been doubted; and it is with pleasure we can report from the same journal for May, 1827, the interesting experiments of Dr. Fearn, as confirming the above fact, and at the same time demonstrating with how much impunity tendons may be wounded, and how strong their recuperative powers, when not injudiciously controlled by an officious and ignorant interference.

Experiment 1st. July 21st, 1826. The posterior third of the tendo achillis of a dog was divided through a small puncture, and the animal set at liberty. This was followed by a complete rupture of the remaining fibres. No union ensued. *Oct.* 21*st.* No union; extremities separated an inch and a half, and loose. Seton was introduced, and limb dressed with splint and bandages. These were all removed on the thirteenth day; the dog did not use the limb. *Nov.* 21*st.* Re-union perfect; tendon enlarged through its whole length. Dog was killed: tendon found of a *uniform* thickness; rounder and harder than its fellow; colour less bright than in a healthy tendon.

Experiment 2nd. Dec. 27th. Division and rupture of tendon as before. Dog turned loose, and afterwards killed, Jan. 25th, 1827. No traces of inflammation. Extremities of tendon separated for two inches and rounded. No attempts at re-union.

Experiment 3rd. Nov. 28th, 1826. Tendo achillis ruptured in a sheep, and seton at the same time introduced. *Dec. 5th.* Parts inflamed, indurated; some suppuration. *Dec. 15th.* The seton removed; suppuration free; induration less prominent. A roller and splint applied. *Dec.* 30*th.* Ends of tendon separated for two inches, dense uneven cord connecting them. Sheep killed. A vertical section of the exposed tendon, presented a dense white cord, connected above to the tendon, sheath, and cellular parts, and extended uniformly downwards to the extremity of the inferior fragment, where it turned off, to adhere laterally to the tendon and its envelop; so that the extremity of the old tendon, for three-fourths of an inch upwards, was enclosed as if by a sac, filled with sanious blood.

Experiment 4th. Somewhat varied from the preceding. *Dissection* in a month proved, that the extremities of the fragments did not unite, the intervening substance being connected to them laterally. A fine injection demonstrated the vascularity of all the parts, excepting the extremities of the fragments.

Experiment 5th. In this, nearly all the fibres of the old tendon were found united to the new intermedium. A few only were found loose and of a dull yellowish colour.

Experiment 6th. The tendon of a puppy was divided, and the animal turned loose, without dressings. In twenty-one days it was killed; no intervening substance perceptible; some slight adhesions laterally; the surrounding parts vascular.

These experiments tend to prove, 1st, that tendons will not unite when motion is allowed from the time of accident.

2nd. That when at rest, union will ensue by a deposition from the cellular membrane, from the sheath, and from the substance of the tendons under very favourable circumstances: in other cases, that the lymph is effused from the cellular tissue and envelop only; the extremities of the tendon dying, and becoming eventually absorbed; their place being occupied by a further deposition of lymph so that the whole cord becomes uniform.

3rd. That when union has not occurred, and the extremities of the tendon have been rounded by absorption, union may be effected by inducing inflammation, and the consequent deposition of lymph by means of a seton, so that the functions of the parts may often be restored.

The practical deductions from these facts may be readily drawn.

49. *Traumatic Tetanus, cured by Tobacco.*—Dr. Jos. C. Skinner relates in the Philadelphia Journal for May, a case of opisthotonos immediately relieved by an enema of an infusion of tobacco. (℥ss. to a pint of water.) The enema was followed by violent pain in the bowels; with relaxation of the tetanic spasms, profuse perspiration, and finally a quiet sleep. In six hours after, a slight disposition to a return of the spasms being observed, the injection was repeated, and laudanum exhibited by the mouth with relief. The patient recovered.

50. *Incontinence of Urine.*—M. Canin has cured, by the repeated application of dry cups to the perinæum, two young men of incontinence of urine, which had resisted the usual treatment. In one, a blister was also applied to the sacrum.—*Nouv. Biblioth. Med. Jan.*

51. *Axillary Aneurism.*—M. Roux has secured the subclavian artery above the clavicle for a spontaneous axillary aneurism. The patient had every prospect of recovery.—*Ibid.*

52. *Strangulation of the Intestines through a Congenital Opening of the Diaphragm.*—A young man died suddenly after vomiting excited by indigestion. Examination discovered, that a large portion of the intestines had been forced through an oval opening in the diaphragm, whose edges were smooth, and greatest diameter at least three inches, and were there strangulated.—*Archives Générales, Jan* 1827.

53. *Strangulated Hernia, cured by Leeches.*—M. Sue reports a case of strangulated inguinal hernia, the reduction of which, after vain attempts by general bleeding and warm baths, was very easy and almost without pain, after the application of thirty leeches about the ring. MM. Giraud-St.-Rome, and Rampal, have communicated two similar facts.—*Ibid.*

54. *Section of the Uterus.*—M. Guillon has invented instruments for the amputation of the neck of the uterus, while this organ remains in its natural situation: and other instruments for the partial removal of the body of the uterus, after having previously procured an adhesion between the peritoneal surfaces of the uterus, and vagina, so that the cavity of the abdomen need not be exposed, &c. &c.—*Ibid.*

55. *Speculi.*—We noticed in our last number the urethro-cystic speculum of M. Segalas. The ingenuity of our transatlantic brethren is not yet exhausted. M. Bombolzini has devised a speculum "to explore the interior of the stomach, of the bladder, of the uterus, and finally of the large intestines."—*Ibid.*

56. *Paracentesis Thoracis performed a second time, after an interval of twenty two years.*—M. Gerhard, Jun., performed this operation for em-

pyema from a pleurisy, on a man who had been operated on for the same complaint, twenty-two years previously by M. Guerard, sen. On the fifth day from the operation, the man got out of his bed. On the eleventh day, the discharge was much diminished, and the wound soon cicatrized. A year afterwards, the man was in good health, without cough or any difficulty in respiration.—*Archives Générales for Jan., from Horn's Archives for April,* 1826.

57. *Fracture of the Sacrum with Luxation of the Coccyx.*—A female aged thirty-eight years, fell from a hay-loft, upon a ladder, so that the whole force of the blow was received on the sacrum and coccyx. M. Judes found her three hours afterwards, in a supine position, not able to move without great difficulty and severe pain. On examination, per rectum, the coccyx was found separated from the sacrum, and this last named bone fractured near its superior extremity.

In dressing the patient, M. Judes introduced into the rectum, a cylinder of wood, five inches long, and three in circumference, and compresses were applied externally, assisted by a suspensory or T bandage, to keep the fragments in a proper situation. In three days, the apparatus was removed, and an injection administered. In forty-five days, the patient began to walk, and soon could move as easily as ever, and without pain.—*Journ. Med. de la Gironde, Sept.* 1826—*Bulletin Med. Feb.* 1827.

58. *Emphysema.*—A female child aged twenty-six months, while suffering under symptoms of bronchitis with a convulsive cough, during a paroxysm of coughing, "seized the bed on each side with its hands, contracting herself like a female in labour." Immediately afterwards, a sub-cutaneous emphysema was observed at the superior part of the thorax, on the face, and sides of the neck, which was attributed by her physician, M. Vitry, to the rupture of a pulmonary vesicle, or what is most probable, of some of the bronchial tubes. This happened on the 6th of Jan. 1826, and soon the distention affected the head, thorax, and abdomen, with increased symptoms of dyspnœa, cough, &c. Incisions were made into the cellular tissue, by which the air was discharged with immediate relief to the agitation, and feeling of suffocation. The cough diminished, and by the 20th of Jan., all tumefaction had disappeared. The little patient recovered her good looks and strength.—*Archives Générales, March,* 1827.

59. *Amputation in a case of Elephantiasis.*—Professor Naegele has related a case, (in the Heidelberger Klenishe Annalen t. ij.) in which he amputated the leg of a patient suffering with elephantiasis. The disease extended above the knee. The professor, however, preferred amputating below the knee, in the midst of the degenerated tissue. Some fever succeeded; a free suppuration was established; the contraction of the wound was facilitated by bandages; the stump diminished in size, and on the 4th of May, the patient was discharged with a cicatrix well formed, and with a good stump. The operation was performed on the 9th of Feb., the year not mentioned.

Professor N. does not consider elephantiasis as a specific disease, but simply as a case of hypertrophy.

60. *Foreign body, lodged in the Œsophagus.*—M. Begin relates, in the Journ. Univer. for March, the case of a gentleman, who swallowed, when eating hastily, a portion of a partridge's rib, which lodged in the thoracic portion of the œsophagus. A convulsive cough, with attempts to vomit, and extreme agitation were immediately excited. These soon disappeared; but in a short time, the patient, naturally of a good constitution and in robust health, lost his health and strength; "he became thin, morose and dispirited; his voice was broken; labour fatigued him; sleep was short, light, and frequently interrupted; digestion was difficult; when in the midst

of a paroxysm of coughing, terminated by an effort to vomit, he perceived a foreign and solid substance in his mouth." This proved to be the bone which he had swallowed, one end being very sharp, the other rounded. "Its body was corroded on its surface, and as if, in part, digested by the mucous fluids, [?] with which it had been so long surrounded." The patient recovered gradually from the dangerous condition to which he had been reduced.

This case is interesting, as demonstrating how all the organs sympathise with a local irritation; and we regret, that dates are not given, so that we can determine how long the patient had suffered.

61. *Excision of Carious Joints.*—In the fourth volume of the Dublin Hospital Reports, which we propose to analyze in our next number, there is, among many valuable papers, one by Mr. **Philip Crampton**, on the Excision of Carious Joints, as originally recommended and practised, it is said almost simultaneously by Mr. **Park** of Liverpool, and M. **Moreau** pere, de Vas le duc; which operation, although *reported* by surgeons as successful, has been neglected for many years. Mr. **Park**'s first attempt was in July, 1781. In 1782, **Moreau** operated in France, without, say his compatriots, any knowledge of **Park**'s success. The degree of success attending these gentlemen, and especially the numerous examples more recently recorded, of the successful removal of the extremities of the long bones in compound dislocations, has induced Mr. **Crampton** to test Mr. **Park**'s practice by renewed trials on the human subject.

Case 1st, was a man aged twenty-three, in whom "the scrophulous aspect was distinctly marked; and who was sent to the General Hospital for a scrophulous white swelling of the right elbow joint of ten months' standing. The swelling extended at least a hand's breadth above and below the joint, with suppuration, deep ulceration, exposed caries of the bone, and constitution much impaired by hectic fever, sweats, &c. The operation of excision was performed on the 4th of Feb. 1823.

"The patient was placed, (as recommended by M. **Moreau**,) upon his belly on a table covered with a mattress, and pillows so arranged as to make his posture as little inconvenient as possible; the diseased arm hung over the edge of the table, presenting its posterior and inner surface to the operator; the brachial artery being compressed by an assistant, an incision was now made along the spine of the inner condyle, commencing about four inches above, and terminating about two inches below its tuberosity. This incision passed through the centre of the ulceration, and laid bare the ulnar nerve, which was carefully raised from its groove, and drawn to the inner side of the incision.* A similar incision, parallel to the first, was made on the outer side of the humerus, and then a transverse section, which cut through the tendon of the triceps muscle, immediately above its insertion into the olecranon, connected the two longitudinal incisions, so that the wound represented pretty accurately the letter H.; the lateral incisions, however, being slightly incurvated, so as to follow the bend which the fore-arm made with the arm. The upper flap, consisting of the lower extremity of the triceps muscle, the thickened and diseased cellular substance, and integuments, was raised from the flat surface of the humerus, to which it had a very slight attachment; the lower flap was separated in the same manner, so as to lay bare the upper extremity of the ulna and radius; the scalpel laid on its flat was now pushed between the flexor muscles and the bone on its anterior surface, at the distance of three inches above the tuberosity of the inner condyle, and retained in this situation by an assistant. The saw was then applied, and the bone was divided immediately over the flat surface of the knife, which served as a protection to the muscles beneath. The separated portion of the humerus was now raised with the utmost ease by the finger and thumb of the left hand, while the capsular and lateral ligaments, degenerated to the state of a lax cellular substance, were separated by running the knife round the condyles, keeping the edge as closely as possible to the bone. The lower extremity of the humerus being removed, the articulating surfaces of the radius and ulna were completely exposed; but, with the exception of the cartilage which covers the olecranon, (which was partially eroded,) every thing appeared sound. The olecranon was now removed, and the wound was sponged out; as there was no bleeding which rendered it necessary to have recourse to a ligature, the flaps were laid down, and secured to each other by four points of suture. The fore-arm was placed at a right angle with the arm; the wound was covered with pledgets of lint wetted with spirits and water, and the man laid in bed, with the arm supported on a suitable pillow.

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* "From neglecting this precaution in M. Moreau's case, the ulnar nerve was cut across, and the ring and little finger were deprived of the powers of motion."

"He passed the night remarkably well. Suppuration, attended with a very slight degree of symptomatic fever, set in on the fourth day; but, so favourable did every thing proceed, that on the ninth day he sat up in his chair, the arm being supported in a tin case, which I had constructed for the purpose. The wound, however, was slow in healing, no doubt from the bad constitution of the patient; I sent him therefore to the sea side five weeks after the operation, and there he recovered so rapidly, that on the following week he walked into town to see me, a distance of nearly five miles. He continued to reside at the sea side for three months, walking into town and returning on the same day once a week. On the 18th of September he returned to the King's Infirmary, in order to pass the board of general officers at the Royal Hospital for his discharge. At this time the wound, with the exception of a small superficial ulceration about the place which had been occupied by the inner condyle, was completely closed. The arm, when allowed to hang by the side, retained nearly a semi-flexed position; but, by a voluntary effort, he was able to give a slight degree of flexion to the fore-arm, so as to lessen the angle which it formed with the arm. He had the use of the fingers, so as to be able to use his knife and spoon; and on the 27th of November, 1823, *he signed his own discharge with the right hand.*"

This patient was soon after affected with a chronic or scrofulous abscess of large size in the loins, which manifests the depraved state of the system, which, nevertheless, could endure so severe an operation.

Case 2nd. *Excision of the Knee Joint.*—Susan Conolly, aged twenty-three, of a strumous habit; a former sufferer from scrofulous diseases, and of an emaciated appearance, has a white swelling of the knee joint, of about twelve months' duration, with pain, ulceration, caries, hectic, &c. &c. &c. Joint permanently flexed. On the 7th of May, 1823, the operation was performed in the following manner:

"An incision, commencing about three inches above the outer condyle, and a little below the axis of the femur, was continued to about an inch below the head of the fibula. The acute angle, which the leg formed with the thigh, necessarily gave to this incision the form of a crescent. In making the incision, the knife was carried down to the bone; a similar incision was made on the inner side of the joint. The lateral incisions were united by a transverse cut carried below the patella. The flap, thus formed, was raised by a rapid dissection, and the cavity of the joint was completely exposed: for the extent of more than three inches above the condyles,

emur was without periosteum, the purulent matter lying in contact
the naked bone. At the point where the periosteum appeared to be
d with the bone, the saw was applied, and the bone was divided, the
arts being protected by a spatula which was passed between the mus-
nd the bone. The separated portion of the femur was now dissected
nd so slight were its connexions with the soft parts, that this part of
eration, which I expected would have been attended with some
, was effected with the greatest ease. The articulating surface
ia was now fully exposed; it was totally deprived of cartilage, and
state of caries. By means of a strong and short knife, such as is
y shoe-makers, I was enabled to pare away about half an inch of the
f the tibia, the cancelli of which were loaded with a lardaceous mat-
d with pus.

he cavity of this great wound was now sponged out; when, upon mi-
examining the cut surface of the femur, I found that the cancelli
diseased and filled with pus, and that posteriorly the periosteum was
hed from the bone. I therefore sawed off about an inch and a quar-
ore of the femur. On placing the extremities of the femur and tibia
ntact, the flap, containing the patella, was found to be about three
s too long; and as the patella itself was totally deprived of its carti-
and in a state of caries, the exceeding portion of the flap, including
tella, was removed by a transverse incision. No artery was divided
required the application of a ligature. The flap was retained in its
n by two points of the interrupted suture, and compresses wetted in
and water were laid over the wound. The limb was now placed in
n in one of ASSELLINI's "carrying splints," which had previously
arefully adapted to the size and length of the limb; it extended from
the trochanter major on the outside, and from the ramus of the pubis
inside, to about four inches below the foot; it was supplied with a
ece, which supported the foot, and was carefully padded with a mix-
f baked hair and wool.

he woman bore the operation, which was by no means tedious, with great fortitude; and indeed, when it is considered that very little muscular structure, and no large nerves or blood vessels were divided, it is probable that the pain was much less than is attendant upon an amputation of the thigh. However this may be, it is certain that the operation was succeeded by but little constitutional disturbance; and, to the great surprise of every one who witnessed the progress of the case, this great wound united by the first intention, and was healed in less than three weeks."

The patient continued to improve until the 12th of September, when she had an attack of erysipelas, at that time epidemic, followed by suppuration in the ham for three or four weeks, when it healed. Her health again improved. In November, another erysipelatous abscess reduced her, and two or three additional attacks of this kind diminished her strength. No degree of union had ensued between the bones, even by the 27th of June, 1824, when she was discharged in good health.

In the winter of 1825 and 1826, she was readmitted into the hospital in a wretched state of health, with hæmoptoe, purulent expectoration, and other phthisical symptoms, and a slight discharge at the fistulous opening in the ham. There was a general thickening about the joint. Her strength was again restored by suitable measures, and in May, 1826, she returned to the country; but soon after, in July, died, three years and two months after the operation.

Mr. C. thinks, that the want of bony union in this case, arose from the necrosed state of the extremity of the femur which was found denuded of periosteum, and its cellular structure filled with pus; from the diseased state of the patient evinced by her previous scrofulous ulcerations, and her phthisical symptoms. Hence he did not hesitate to repeat the operation on another individual.

Case 3rd. Anne Lynch, æt. twenty-two, a strong good looking country girl, was admitted into Meath Hospital on the 3rd of May, 1823. No peculiar character of a strumous habit was evinced.

"About four years ago, she was seized with a sudden and severe pain in the right arm. The pain soon left the arm and settled in the right knee, which from that time continued to be, more or less, affected with severe pain, principally confined to the inner condyle. The pain was much increased by pressure on either condyle, by the slightest motion, and by the heat of the bed at night. The joint became perfectly stiff, and a good deal contracted, so that she could only touch the ground with her toe when standing on the left leg; and the swelling, which for the first few months was inconsiderable, gradually increased, and is now of a very great size, globular in its form, elastic to the touch, of a dusky red colour towards the inner side, and the surface intersected by numerous and large blue veins. She described the pain as being excruciating, particularly at night time. Within the last two months symptoms of hectic fever have manifested themselves, but upon the whole her appearance is not very unhealthy. She has lost but little flesh; and the treatment, both local and constitutional, to which she has been subjected since her admission into the hospital, has abated the pain, and improved her general health.

"On the 4th of August, the operation was performed, as in the case of Conolly, with this difference, that the poor girl, who, in coming into the operating room, exhibited the greatest fortitude, and even cheerfulness, on the instant that the knife was applied to the skin, became so ungovernable, that four strong assistants could, with the utmost difficulty, retain her upon the table. This necessarily prolonged the operation, and no doubt very much increased its severity. The removal of the divided extremity of the femur, which, in the case of Conolly, was effected with the utmost ease, in perhaps less than a minute, was here rendered a work of infinite difficulty and danger, as when the knife was passing between the popliteal artery and the bone, and actually in contact with the former, no entreaty could induce the poor girl, whom terror seemed to have deprived of her reason, to remain for one moment at rest; she struggled so violently with both limbs, that it was with a degree of labour and anxiety, such as I had never before experienced, that I at length succeeded in passing the edge of the knife round the condyles posteriorly, and thus detaching the divided extremity of the femur. The patella, which was carious, was removed with the lower portion of the flap, as in the case of Conolly, but the articulating cartilage of the tibia appeared to be sound. I pared away the greater part of it, however, and removed the semilunar cartilages, of which only the inner one exhibited any marks of disease.

"The treatment was conducted in all respects, as in the case of Conolly, with this difference, that I was obliged to resort to a variety of contrivances to keep the limb in position. The same unmanageable disposition, which caused so much embarrassment during the operation, greatly interfered with her recovery. Nothing could induce her to remain for one moment in any position which she found was attended with inconvenience; the consequence of these constant changes of position was, that the extremity of the femur was often protruded through the wound. Notwithstanding all this, and the occurrence of a large sloughy sore on the buttock, in consequence of an insufficient attention upon her part to cleanliness, her general health was but little impaired: a small exfoliation took place from the extremity of the femur, and in about two months she was ve er bed to a chair. In about four weeks after the exfoliation wound was completely healed, and the limb had acquired egree of firmness. About six months after the operation, ibia were consolidated by a firm bony union; and the h timid beyond all example, began to lay her foot gently to upporting the weight of her body, however, on crutches. went to the country, and in the month of October, 1824, I re- letter from my friend and pupil, Mr. Rynd, of which the following ract:—"Your old patient, Anne Lynch, *walked* from Kilcock to house, (a distance of nearly five miles,) to see me this morning. xcellent health, and the limb is perfectly firm, though bowed .' Anne Lynch has been frequently in Dublin since that period, as presented herself for examination at most of the hospitals. She is n town; and I have this day, Nov. 3, 1826, examined the limb, and hat the femur and tibia are firmly consolidated: the leg and thigh are the slightest degree wasted, but the limb is considerably bowed rds. She wears a shoe with a cork sole, four inches thick; and, to er own expression, 'is able to stand or walk the length of a day.'"

repeating the operation of excision of the knee joint, Mr. C. would ate rather differently. From repeated trials, he is satisfied, that he can te most safely and rapidly, by separating the condyles from all their hments, previously to sawing the bone. He proposes to raise the flap patella upwards, and to divide *all* the ligaments connecting the femur he tibia, by carrying the knife round the condyles close to the bone: he tibia can easily be pushed backwards, and the projecting condyles ed.

Un-united Fracture of the Tibia cured by Seton.—The benefits con- by our fellow citizen, Dr. **Physick**, by proposing the use of a seton treatment of unnatural joints, are daily increasing.

the fourth volume of the Dublin Hospital Reports, Dr. **John Browne** ils a case, in which it was successfully employed in an un-united com- nd fracture of the tibia in a patient sixty years of age. The accident happened on the 3rd of August, 1825: on the 7th of September, he was admitted into the Meath Infirmary; but on the 5th of November, there was a soft union, allowing of motion between the fragments of the tibia. At this time the seton was passed.

Dec. 17th. The seton has been gradually pushed by the new bony depositions, from its original channel between the fragments; and, being confined simply by the integuments, was removed.

Jan. 19, 1826. Fracture firmly united, wound healed.

VI. MIDWIFERY.

63. *Pregnancy with Ascites.*—In the London Medical and Physical Journal for May, Mr. **James Russel** relates a case in which he tapped a female, near the close of the sixth month of her pregnancy, and thus afforded her great relief. The operation was performed on the 20th of June, 1826. On the 5th of July, she was able to walk a mile to visit her surgeon. On the 24th, labour supervened: the child was born alive, and continued to live for ten days. The mother returned very soon to her laborious occupation, and on the 23d of September, she was again tapped with relief to her urgent symptoms. The fluid afterwards re-accumulated.

64. *Pregnancy after Amputation of the neck of the Uterus.*—M. **Lisfranc** reported to the Section of Surgery in December, that the female whose

case was noticed at page 402 of our last No., as being pregnant after amputation of the cervix uteri, was safely delivered at the full period of gestation, after a labour of one hour's duration.—*Nouv. Biblioth. Med.*

65. *Pregnancy with Aneurism of the Heart.*—M. **Costa** related to the section of Medicine, the case of a female in the eighth month of pregnancy, suffering from an aneurism of the heart, and threatened with suffocation. She was relieved of this urgent danger, by a premature labour accidentally occurring.—*Nouv. Biblioth. for March.*

66. *Difficult Labour.*—MM. **Martin** and **Rigord** were called to a female in labour for four days, the membranes having ruptured with little or no discharge of fluid. They discovered, that a new tumour, apparently like a new collection of water in the membranes, was formed of the abdomen of the fœtus, which contained water or diseased viscera. Delivery by the feet was attempted without success, and as the infant was dead, a bistoury was plunged into its abdomen. This operation was followed by the discharge of sixteen or eighteen pounds of liquid, after which the labour was easily finished. The fœtus had no cranium, and presented on the posterior and superior part of the face, a *Fungus Hæmatodes;* many of the ribs and of the pelvic bones were wanting, and the fœtus otherwise deformed. The abdomen contained still an encysted tumour, which, when opened, discharged a pound of yellow water, and its parietes were rough and slightly ossified.—*Arch. Gener. Jan.* 1827.

67. *Retention of the Placenta.*—Dr. **Prost**, physician at Vienna, has related two cases of retained placenta, with the view of demonstrating that this accident is not as dangerous as usually imagined. In one, a female 21 years of age, had an abortion about the fourth month, on the 12th of April, 1824. The placenta was retained. No fever ensued, and convalescence was favourable. The menses did not re-appear until the 14th of August, when they were inordinate. On the 15th of September, Dr. P. found this patient much exhausted, and confined to bed. The uterus was enlarged, the os uteri would not admit a finger; and, since, no accurate diagnosis could be made of the state of this organ. On the 30th of September, pains, similar to those of labour, supervened; the neck of the uterus would now admit the introduction of two fingers, so that portions of the placenta were extracted, and the whole was finally removed by the uterine contractions. The loss of blood was considerable from inertia of the uterus, and threatened life, but was arrested by exhibiting the *ergot.* The convalescence was tedious and painful; the lochia continued for more than two months, and after six months, the patient had not recovered her strength, owing, says our reporter, to the habitual use of vinegar, while her menses returned every twenty or twenty-one days, profusely. On examining the expelled mass, there could be no doubt that it was formed of the placenta, *augmented in volume,* forming what authors have termed a mole.

In the *second* case; there was an abortion on the 7th of June, 1825, in a female, aged twenty-five years, and about five months advanced in pregnancy. The placenta was retained, and no attempts were made to extract it. On the 19th of September, one hundred days after the abortion, the placenta came away. "The female had constantly lost blood every day, from the moment of the delivery of the embryo, to that of the placenta; she was weakened, and exposed to colics the whole of this period."

The convalescence was happy, and health completely re-established on the 9th of October following.—*Jour. Univers. Feb.*

From these facts, it is to us surprising, that Dr. **Prost** should deduce the propriety of remaining inactive, and allowing the placenta to be retained. Certainly, it is no argument for this practice, to say, that two young females did die, because the placenta was retained, when both were grea and one seriously, and perhaps permanently injured, by the , pain, &c. to which she was subjected. Others, with less constitutions, would probably have perished very speedily; and urselves, seen a young female of good constitution perish in a rom the continued irritation of a placenta, retained by a prema- nodic contraction of the cervix uteri, where no hemorrhage

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VII. CHEMISTRY.

Passage of Substances into the Urine.—Dr. Wœhler has written a me- on this subject, which obtained the prize, offered by the Faculty of cine of Heidelberg. The experiments were made upon dogs, which killed, after the ingestion of the different substances, by means of cyanic acid, as affording the quickest and easiest death; the urethra immediately tied upon the extinction of life, to prevent the escape urine. We shall notice his principal results.

ple Bodies and Inorganic Compounds.—*Iodine.*—This substance into the urine, changed to hydriodic acid. In one instance, a bitch that uckling her young ones, was forced to swallow four grains of iodine. poison proved fatal to one of the puppies in five hours, and, upon nation, its urine, and the milk in its stomach, gave traces of the ice of iodine.

aline Carbonates.—These substances being good remedies in cases e a morbid redundancy of uric acid prevails in the urine, physicians had frequent opportunities of observing their passage into that secre-

Hydrosulphate of Potassa.—This salt may be discovered in the urine, after an alkaline sulphuret, or flowers of sulphur have been taken. It is easily detected, by adding muriatic acid to the urine, and placing over the containing vessel, a piece of paper wet with acetate of lead.

Chlorate of Potassa.—This salt also passes into the urine. A dog, after taking a drachm of it, was killed after the lapse of four hours. The bladder contained about half an ounce of very pale urine, which, being evaporated to one-half, afforded a considerable quantity of the chlorate in crystals. The stomach showed no trace of inflammation. Like other salts of the same class, it augments the secretion of urine.

Nitrate of Potassa.—A horse was killed four hours after the ingestion, on an empty stomach, of five ounces of this salt. A part of the urine was evaporated to the consistence of sirup, and then subjected to the action of alcohol. Crystals were obtained from the alcoholic solution, which proved to be nitre.

Ferrocyanate of Potassa.—This salt has been frequently observed to pass into the urine, and is easily detected by the salts of iron, which strike a blue colour with it. When, however, the salt is present in minute quantities, it cannot be detected by the simple addition of a ferruginous salt, but can only be made manifest by a preliminary separation, by an acid, of certain ingredients of the urine, which, precipitating at the same time with the Prussian blue, conceal its colour.

Subborate of Soda, or Borax.—This salt passes into the urine, as was proved by an experiment of Tiedemann and Gmelin.

Muriate of Baryta.—This salt is capable of finding a passage into the urine; but, in an experiment on a horse, made by Tiedemann and Gmelin, it was less abundant in that secretion, than in the serum of the mesenteric veins and vena porta.

Silica.—Berzelius was the first to announce the presence of silica in the urine, supposing it to be derived from the water which we drink. By an experiment of Wœhler, consisting in the administration of five ounces of silicated potassa to a horse, he proved that this earth might pass in considerable quantities into the urinary secretion. The stomach of the animal was violently inflamed.

Organic Compounds.—Vegetable Acids, and their Salts.—*Oxalic Acid.*—A dog took fasting, in a cake made of bread and meat, two drachms of oxalic acid in powder. Neither vomiting nor any other inconvenience was experienced. Eight hours afterwards, the animal was killed, and the urine gave indications of the presence of oxalic acid, and oxalate of lime. The secretion was also remarkable, in containing a large quantity of albumen.

Tartaric Acid.—A dog was killed five hours after the ingestion of two drachms of this acid. The urine was more acid than natural, but no albumen was present. It proved to contain, in considerable quantities, both tartrate of lime and tartaric acid.

Citric and Malic Acids.—Morichini asserts, that after having drunk freely of lemonade, he found so large a quantity of citric and malic acids in his urine, that it appeared to be nothing else than a solution of those two acids. Dr. Wœhler, however, is of opinion, that it must have contained the usual constituents of urine, such as phosphoric acid, urea, and the usual salts; and that Morichini must have been misled by the paleness and dilute state of the secretion. The journal from which this statement is taken, reports *nitric* and malic acids, as those present in Morichini's experiment; but here *nitric* is evidently misprinted for *citric.*

Gallic Acid.—The urine of a dog, which had swallowed a drachm of gallic acid, proved to be abundantly impregnated with the acid. Tested by the permuriate of iron, it instantly became of a black colour.

In the case of a patient, suffering from a calculous affection, and who was taking soda, soap, uva ursi, and bark, the urine became dark violet by exposure to the air. The colour was supposed to arise from the gallic acid, contained in uva ursi.

Emmert found, that the urine of a patient, to whose skin a decoction of the false Angustura bark had been copiously applied, acquired a deep green colour, upon the addition of salts of iron; thereby demonstrating the presence of gallic acid.

The urine of persons, who make use of ferruginous medicines and rhubarb at the same time, is apt to assume a black colour. This arises from gallic acid, which, according to Brande, is contained in large amount in rhubarb.

Succinic Acid.—Half a drachm of this acid was given to a small dog, and at the end of five hours, the animal was killed. The urine, upon examination, proved to contain succinic acid.

Benzoic Acid.—It was proved long ago by Fourcroy and Vauquelin, that the urine of horses, cows, camels, and other herbivorous animals, contains benzoic acid; but the point is contested, whether it is a product of digestion, or introduced, ready formed, with the food. Vogel, having detected its presence in the urine of children at the breast, and found it in the urine of the rhinoceros, though absent in that of the elephant, both animals being fed on the same food, is disposed to maintain the former opinion. Without pretending to decide this question, it is at least demonstrated by Dr. Wœhler's experiments, that benzoic acid, taken into the stomach, passes into the urine in large quantities, without decomposition.

Vegetable Alkaline Salts.—Dr. **Wœhler** swallowed, in solution, a drachm of acetate of soda. His urine, voided at the end of an hour, was acid; but at the termination of the second hour, it had become distinctly alkaline, and effervesced with acids. That voided an hour later, had returned to its ordinary acid state. Dr. **Wœhler** states, that this experiment was repeated, a number of times, by his friends, and with considerable quantities of the salt, and in every instance, without exception, the urine at first always acid, became alkaline.

Dr. **Wœhler** states, that the same results were obtained with other vegetable salts, in experiments repeatedly made as well on himself and other persons, as on dogs. Bitartrate of potassa (cream of tartar), neutral tartrate of potassa, boro-tartrate of potassa-and-soda (soluble cream of tartar), and tartrate of potassa-and-soda (Rochelle salt), taken in the dose of three drachms, were converted, by their passage into the urine, into alkaline carbonates. Sir G. **Blane** asserts the same thing respecting the citrate of potassa; and it is probable that a similar change takes place in all the vegetable alkaline salts. Dr. **Wœhler** has, also, often remarked, that the continual use of acetate of potassa by the sick, renders the urine alkaline, and by saturating the natural acidity of this secretion, precipitates the earthy phosphates.

Supersalts are converted into carbonates only in part: at least this is the case with cream of tartar. After the ingestion of this salt, so long as the urine remains alkaline, tartaric acid cannot be detected; but upon the return of the usual acid properties of the urine, this acid may be found.

Urine, which has become alkaline by the ingestion of a vegetable salt, is usually rendered turbid immediately on cooling or soon after, in consequence of the deposition of the earthy phosphates. After swallowing several drachms of a vegetable salt, the urine, treated by an acid, is usually as effervescent as Champagne.

Dr. **Wœhler** states, that one of his friends remarked to him, that when he ate cherries, his urine lost its acid quality, and became effervescent with acids. The doctor, upon trial, verified the statement of his friend, and was at a loss to explain the result, unless by supposing the existence of a vegetable alkaline salt in this fruit. To determine the value of this conjecture, he chared a pound of cherries, and incinerated the charcoal formed. The ashes were then treated with water, and afforded an alkaline solution, which consisted of carbonate of potassa. Dr. W. expresses his surprise, that this alkali, though in considerable amount in cherries, should have escaped the observation of **Berard.**

Cherries contain, besides, a free acid, even the sweet varieties, for their juice reddens litmus paper; unless indeed this effect should depend on the presence of a supersalt. Sweet cherries render the urine much more alkaline than sour ones, as we should a priori suppose. The urine of an individual, who had eaten a pound of sweet cherries, became nearly as alkaline, as it would have been, if he had taken several drachms of a vegetable alkaline salt.

Strawberries, also, render the urine alkaline, but not to the same degree as cherries. This property probably belongs to many of the sweet fruits, or, at least, to all those which contain an alkaline vegetable salt. On the other hand, those which contain free acids only, do not possess this power; as, for example, gooseberries and lemons.—*Journ. des Progrès des Sciences Med.—Vol. I. and II.* 1827.

VIII. MEDICAL JURISPRUDENCE.

69. *Rupture of the Duodenum.*—We give the following article a place in this department of our Journal, not, as will be seen, on account of the case therein narrated having been made a subject of legal inquiry or criminal prosecution; but in order to add to the stock of information of the medical jurist, by showing him, that ruptures and lacerations of internal parts are not the necessary effect of external injury, or attempts to maim and disable a fellow being; and to guard him against the prevalent error, in all reasonings, of regarding two coincident circumstances or events, as being in the relation to each other of cause and effect. In the instance detailed below, had the person who died been engaged in any struggle or exchanged blows with any other individual, during his paroxysm of anger, there is little doubt but that the latter would have been tried for homicide.

M. Bernard Filioca, aged 48 years, of a florid complexion, after having dined heartily, on the third of February, of French beans, meat, and an apple omelet, went to a coffee-house, where he played at billiards, and drank beer and punch. An altercation of some bitterness occurred there, and he was thrown into a violent fit of anger. On retiring, with one of his friends, he complained suddenly of a great pain in the stomach, which increased and became so violent as to deprive him of the power of standing, and it was found necessary to carry him into an apothecary's shop, where he had administered to him an antispasmodic draught. He had scarcely swallowed a few spoonfuls of it, when he vomited and was abundantly purged. His extremities were observed to become suddenly very cold. He was taken to his own house. Mr. Dupuy found him stretched on his bed, his limbs of an icy coldness, and complaining of a violent pain in the epigastrium, a weight in the belly, and a desire to go to stool. Tea and an injection had been given him. There was, however, no alvine evacuation, notwithstanding all his efforts. The physican could not, at any time, feel the pulsations of the radial or carotid arteries, or the beating of the heart. The countenance was not altered, and the patient gave, with precision, an account of himself. He renewed the attempt to go to stool, sat upon his bed, and declared himself better. The respiration was very moderate, but gradually diminished, and he died without uttering a groan.

On examining the body next day, there were found ecchymoses over the whole surface; the lungs were engorged and adhered to the pleura; the heart was voluminous and abounding in fat, and the aorta a little dilated. Gas and a grayish liquor were found in the abdomen; the liver, of an enormous size, was gorged with blood; the gall bladder was empty; traces of inflammation were perceptible in the stomach; the mucous membrane of the duodenum was much inflamed, and at the distance of four inches and a half from the pylorus, a transversal fissure, extending a third of the circumference of the intestine, and situated at its convex part, was perceptible: the parietes of the small intestines were very thin throughout; the other organs were in a healthy state.—*Journ. Medical de la Gironde, Sept.* 1826.

In the March number of the same Journal, is detailed the history of a case of spontaneous rupture of the vena cava abdominalis, in a female thirty years of age, of a nervous temperament, and subjected at different times to mental uneasiness. She died a few hours after the attack, which was ushered in by acute pain in the abdomen.

70. *Medico-legal Report of an Exhumation, made three years after Interment.*—By Dr Eugene Delmas. The following is taken from the Edinburgh Journal of Medical Science, being translated from the *Ephemerides Medicales of Montpellier.*

"A Piedmontese, named Bonino, formerly a soldier, aged forty-six years, had retired to a village near Montpellier. He disappeared in 1823, and a report spread that he had gone to Spain; but soon after it was whispered that he had been assassinated by a girl with whom he lived, and a person named Diamont, who was known to have been long intimate with her, and who had married her nine months after the disappearance of Bonino. Two years passed away, however; after which, in 1826, the legal authorities being informed of the rumours spread abroad, caused a search, and a body was found in the garden of the suspected person. In the first place, it was necessary to ascertain if the body was that of Bonino, which could be recognized by one peculiar circumstance, namely, a sixth finger on the right hand, and a sixth toe on the left foot. I was charged with the examination of the affair, and the following report is the result. Diamont and his wife were tried and condemned by the court of assizes, at Montpellier, on the 26th August, 1826.

On the 30th April, 1826, at the request of the public administration, we went to the Commune of Sussargues, to proceed to the exhumation of a dead body, discovered in a garden. The earth being removed, we found, at the depth of eighteen inches, a human skeleton lying on its back. The head, placed towards the north, was slightly bent forward; the lower jaw was separated from the upper. The arms were crossed upon the breast, so that the right passed a little over the left. The ribs, still retaining the form of the thorax, were separated from the sternum, which we found lying on the opposite vertebræ. Some black hair, and a metal button, were imbedded in a moist, earthy matter, which covered the anterior surface of the sternum. The vertebral column, unbroken, had retained its relations with the head and pelvis. The inferior extremities, stretched out, and on the same level as the trunk, followed the direction of the axis of the body, and inclined towards each other. The right foot which alone we saw in its place, was still in the shoe, a little bent on the leg, and inclined to its outer edge; the left had been removed with the shoe, in which we found only a part of it.

The head, removed from its position, was dry in the frontal region, while the occipital region was still moist, and lubrified by a fatty matter, amongst which we found some black hair: attentively observed, it presented to us, at the right external orbitar angle, a deformity arising from an injury long anterior to death, since nature had produced a cure; we thought from this that there had been a cicatrix in this part. Another lesion of the bone existed on the left side of the coronal suture, but it appeared of ancient date. The left temporal bone, especially, fixed our attention: its squamous portion, almost separated from the parietal bone, was divided into three portions by three cracks, which proceeded from the circumference of the bone, and, before the external auditory canal, united to a fourth, which, turning round the base of the zygomatic process, terminated in the glenoid cavity. The form of this fracture, the soundness of the zygomatic arch and mastoid process, induced us to suppose that it was made with a blunt instrument of a small size. From the absence of any apparent operation of nature to effect a cure, from the separation of the osseous pieces, and the oozing which took place through the different points of the fracture, we think it had taken place at a time very near death. We add, even, that the injuries we observed were the results of a violent blow, that must have brought on a cerebral commotion, which, without considering other accidents, would instantly deprive the individual of the use of his senses, and every means of defence.

The shoes in which we found the bones of the foot, some pieces of woollen cloth surrounding the vertebræ of the neck, metal and wooden buttons, a knife, of which the blade was folded in the handle, and found at the left side of the breast, some fragments of cloth and velvet; all these inclined us to believe that the body had been buried, covered with a part, at least, of its clothes.

Although the time necessary for the complete decomposition of a dead body be very variable, and no exact rule can be established in respect to this, seeing that climate, moistness or dryness of soil, the greater or less depth of graves, circumstances relative to the state or temperament of individuals, all occasion much difference, we endeavoured, nevertheless, to determine how long the skeleton in question had been buried. The general opinion is that, in a temperate climate, when no peculiar circumstance hastens or delays decomposition, it is completed in three or four years. In comparing the state in which we found the parts at the time of exhumation, with what has been said on this subject, we think we may advance that the body has been buried about three years and a half. We indeed remarked what some authors point out as taking place in the third period, that begins after the third year; namely, the entire disappearance of gaseous products, the fetid odour replaced by an odour of mouldiness, and merely a remains of earthy, fatty, friable, brownish and black matter. The only soft parts which we found were vertebral ligaments, the composition of which, from being more nearly of the nature of bone, ought to be the last to disappear.

As neither time nor place permitted an attentive examination of the other parts of the skeleton, we put all the bones that we could find into a bag, to which the legal seal was applied.

On the 5th of May, we went to the judges' chamber, to continue the examination of the bones. We found all the vertebræ, the ribs, and bones of the pelvis, which were soon articulated. Wishing to determine to what sex the skeleton belonged, we examined these different parts. By the width of the passages being small compared to the depth of the pelvis, the outlet narrow, cordiform, and terminated in a point forwards, a formation that depends on the direction of the ischia, which in their descent converge much towards each other, by the oval and very elongated form of the obturator holes, we were induced to believe that it belonged to a man. We are confirmed in our opinion by the small separation of the descending rami of the pubis, which had their anterior face directed outwards; whilst in the female it is broad and flat. These circumstances were in relation with the length, the consistence, and development of the bones.

The sex being known, we endeavoured to discover the man's age. The complete development of the bones, that of the processes to which the muscles are attached, and also the jaws; the state of the teeth, the number of which was complete, with the exception of the fourth molar tooth of the right side of the upper jaw, which had been long out, as the alveolar cavity was ossified, and the adjoining teeth had not changed their direction, although they were not supported: these circumstances induced us to say that he had attained his fortieth year. According to the comparative table of Professor Sue, we determined that the height was about five feet five inches. With the exception of some bones, the extremities were complete, and we articulated the right foot which we had preserved in the shoe. Two sesamoid bones, which are common enough, were the only additional ones that we found. The left foot having been removed in digging, some bones of it were lost. We found only the calcaneum, astragalus, scaphoid, and cuboid, the five metatarsal bones, and three phalanges: this prevented us from articulating it, and ascertaining if there was any thing peculiar. Having separately examined the bones that remained, we found the head of the fourth metatarsal rounded, extending outwards, and presenting a small articular surface, which might have been produced by an extra articulation, but not having seen in what manner this bone was articulated with the first phalanx, we could not determine, if there had been a sixth toe attached to it.

Except some small bones of the carpus, we found all those of the right hand. The fifth bone of the right metacarpus at once attracted our attention: shorter and thicker than that of the other hand, its extremity towards the phalanx separated into two parts, one of which, truly articular, smooth, narrow, rounded, and prominent, had the direction of the axis of the bone; whilst the other, corresponding to the cubital edge, formed with it an angle of about eight degrees: not continued so far as the first, it was equally smooth, and presented an articular surface, which differed from it only in its less rounded form. Having tried to articulate the first phalanx of the little finger, it fitted exactly upon the first articular head, and presented upon the side corresponding to the second a depression, the obliquity of which was in relation with the direction that we have assigned to this second surface. This examination of the different parts of the fifth finger leaves no doubt of the nature of the anomaly which it presents: thus we think we may affirm, a sixth finger must necessarily have existed, although we did not find the bones that composed it. The left hand, of which we found all the bones, except some bones of the carpus, presented no peculiarity.

Such are the results which we obtained: they conduct us to the following conclusions:

1st. The skeleton which we disinterred had been buried from three years to three years and a half, covered with its clothes.

2d. This skeleton belonged to a man about the age of forty to forty-five years, and of the height of five feet five inches.

3d. This man had six fingers on the right hand, the sixth should have been placed beside the little finger; and, if there existed an additional toe on the foot, which we cannot affirm, its place would be on the left foot, on the outside of the little toe.

4th. Death was occasioned by a violent blow given by a blunt instrument, which fractured the left temporal bone.

The value of anatomy, and the advantages derived from it every day by medicine generally, and especially by medical jurisprudence, cannot be denied. The fact just related is a new and remarkable proof of this. It was this science alone that produced evidence on the trial: by it the skeleton reproduced with its deformities, placed the victim in presence of his assassins, and fully convinced their judges.

Great anomalies have been observed regarding supernumerary fingers: they have been sometimes seen supported by a sixth metacarpal bone; at other times resting on the fifth of these bones, or on the first phalanx of the little finger; sometimes also, but more rarely affixed immediately to the radial edge. M. **Boyer** relates, that he has observed them forming a bifurcation upon the first phalanx of the thumb; and I have myself met with a fact of this nature. It has also been observed that additional fingers are rarely found on both hands. Thus, in some persons, there may be on one hand a finger very complete, having its bones and muscles, that permit it to execute easy motions; whilst on the other an imperfect finger exists, but little developed, or perhaps only a mere appendage, that leaves no trace on the bone to which it adheres. The same anomalies exist with regard to additional toes.

The present case presents a new example of these aberrations of nature. Bonino had, on the right hand, a sixth finger, formed of one or several phalanges, and whose articulation with the fifth bone of the metacarpus presented a pretty large surface; but, it was on the left foot that a sixth toe was found, although the articular surface of the fifth metatarsal bone was less evident than that of the fifth of the metacarpus. Upon the right foot and left hand, on the contrary, there was nothing: in reality, there might have existed an excrescence during life, but if so, it was not sufficiently developed for any traces of it to be recognized three years after death.

This fact seemed to me interesting, by the circumstances with which it was attended; as but few such are found in the annals of justice, and I thought it my duty to publish it. I do it with so much more confidence, as after having fulfilled, in this unfortunate affair, the so painful duties of a medical jurist, I had the good fortune to acquire, by the confession of the guilty persons, complete security of conscience, in the certainty that I had not been deceived."

MISCELLANEOUS ARTICLES.

LETTER OF DR. MERRILL TO THE EDITORS.

NATCHEZ, 28th MARCH, 1827.

To the Editors of the North American Medical and Surgical Journal.

Gentlemen—Having lately seen in the "Medical Recorder," some remarks on my communication, published in your fourth number, in which I am charged with having made erroneous statements, I deem it my duty to forward you the enclosed certificates, relative to the only important point in dispute.

From these, it will appear, that of the *seven* cases, reported by the sexton in September, the only two of yellow fever, (attended by a physician) were the *Wallaces*, who occupied a store upon Butler's wharf, were taken sick in August, and died on the 3d of September on the hill: and that the only additional case, during that month, that received medical aid was *Loring Morton*, who had previously occupied a store upon the new wharf, but died also upon the hill. It will also appear, that of the ten cases reported in October, four were denominated *yellow* or *malignant fever* by the attending physicians; the two first of these occurred more than half a mile above the landing, and the remaining two were Dr. Denny's cases, on the 17th and 24th of October, both of which occurred under circumstances of peculiar exposure, as stated in the letter of M. Robetaille, Esq., herewith enclosed.

Had the notice taken of my communication by the editors of the "Recorder," been tempered by that courtesy and liberality, which we are accustomed to look for in the conductors of journals of science, a more particular defence of it would, perhaps, have been necessary; but under existing circumstances, I cannot, in justice to myself, take any further notice of their remarks.

With the greatest respect,
I am, your most obedient servant,
A. P. MERRILL.

ROBERT STEWART'S CERTIFICATE.

List of Deaths under the Hill at Natchez, during the months of September and October, 1825.

Sept. 3d. Alexander Wallace, aged 24 years—Yellow fever. Certified by Dr. T. I. Chew.

Sept. 3d. J. B. Wallace, aged 35 years—Yellow fever. Certified by Dr. T. I. Chew.

Sept. 15. Ursula Devine, aged 11 years—of fever. Certified by Mrs. L. Devine.

Sept. 17. Justin Higgins, aged 30 years, disease supposed to be malignant fever. Certified by Mr. John Scott.

Sept. 18. Loring Morton, ————, Bilious fever. Certified by Dr. S. Gustine.

Sept. 20. James Adams, aged 25 years—Bilious fever. Certified by Mr. Wm. Adams.

Sept. 25. Charles Dickson, no physician, disease unknown.

Oct. 8. Miss P. Biggs, ————, Bilious fever. Certified by Dr. I. S. Cornell.

Oct. 10. Wm. Adams, aged 50 years—Remittent fever. Certified by Dr. R. W. Walker.

Oct. 10. Henry Stephens, aged 25 years—Malignant fever. Certified by Dr. T. Hunt.

Oct. 13. James Griffin, aged 9 years—Malignant fever. Certified by Dr. A. P. Merrill.

Oct. 13. John Chapman, ————, Ague and fever. Certified by Mr. John Scott.

Oct. 14. John M'Coy, aged 27 years, disease unknown. Certified by Mr. John Scott.

Oct. 14. Wm. Berdit, aged 20 years—Bilious fever. Certified by Mr Anthony Junker.

Oct. 15. James Danniels, aged 35 years—Remittent fever. Certified by Dr. T. S. Chew.

Oct. 17. James Camden, ————, Malignant fever. Certified by Dr. Denny.

Oct. 24. William Harrington, ————, Yellow fever. Certified by Dr. Denny.

I certify, that the above is a correct list of the deaths that occurred under the hill at Natchez, during the months of September and October, 1825, to the best of my recollection, and that *Henry Stephens*, mentioned above, died at the tan-yard, about half a mile above the principal part of the city, and *James Griffin*, at the steam saw-mill, still farther up the river.

ROBERT STEWART, *Sexton*.

Natchez, 20*th March*, 1827.

BENJAMIN WADE'S CERTIFICATE.

I certify, that in the month of August, 1825, Alexander Wallace was taken sick under the hill. A few days after he was so taken, he was removed to my house on the hill, accompanied by his cousin James B. Wallace. Immediately after the removal of Alexander Wallace, James B. Wallace was also taken, and both expired at my house in about a week after being attacked. BENJAMIN WADE.

JOHN W. TREMBLY'S CERTIFICATE.

Natchez, March 26, 1827.

I certify, that Loring Morton occupied a store upon Butler's Wharf under the hill, during the summer of 1825: that when the sickness appeared at that place, he went to the country, but returned to the city about the 10th of October; was taken sick the same day upon the hill, where he afterwards died at the house of Jacob Fowler, near the hospital.

JOHN W. TREMBLY.

LETTER OF M. ROBETAILLE, ESQ.

Natchez, March 26, 1827.

Dr. A. P. Merrill.

Dear Sir,—Agreeably to your request, I will state for your information what I know respecting the two cases of fever which occurred at our landing, in the persons of Harrington and Camden. The former arrived here between the 1st and 10th of October, 1825. Having some property on board his boat consigned to me, I was apprised of his arrival, and called on him in his boat: he then lay very much indisposed with either a remittent or intermittent fever. I asked him how long he had been sick, and his reply was, "some time." He lay in his boat some several days afterwards, and then was removed to a house adjoining Butler's new wharf, and by me put under charge of Dr. Denny, and died some time about the 25th of October, of black vomit.

e latter person, (Camden,) was taken sick while in the employ of a Mr. [illegible], in a boat lying opposite Butler's Wharf, about three weeks after arrival at the landing, and died a few days after of yellow fever.

With regard to the existence of water under the store-houses upon the wharf, I have to state, that it had accumulated during the season to the depth probably of from one to five or six feet; and when afterwards drained off, it emitted such an intolerable stench, as to drive many of the inhabitants from the vicinity.

Very respectfully yours,

M. ROBETAILLE.

MEDICAL SOCIETY OF PHILADELPHIA.

At the Meeting of June 16th, 1827, the following Preamble and Resolutions were proposed:

From the natural and excusable anxiety of persons labouring under disease, to seek relief wherever it may be found, it has happened in every age within the memory of man, that secret remedies, professing to be invariably successful, have enjoyed more or less vogue. The City of Philadelphia is at the present moment unusually well supplied with such nostrums, which, according to the representations of their inventors and vendors, are as unerring as the established laws of nature. Though we feel a hesitation in admitting the claims to originality set up by those inventors, in consequence of their very imperfect opportunities of learning any thing connected with the science of medicine; yet we have but little doubt that they are possessed of articles known to the profession. It has frequently happened that medicines thus seized upon are amongst the most potent of the materia medica, and are pernicious or serviceable according to the skill with which they are used. Arsenic has formed the basis of most of the empirical cancer powders and plasters, and corrosive sublimate the base of the pills and syrups for syphilis and cutaneous disorders.

The enlightened and liberal physician has an important duty to execute; he has, when remedies are presented under imposing circumstances, to inquire into their merits and to give them a candid examination; so that on the one hand useful things may not perish by neglect, and on the other, such as are inefficacious or injurious may be justly understood, and avoided accordingly. He has also to watch over the interests of his own profession; and to be very well assured, before he will concede the point, that the greatest intelligence, opportunities, diligence, and zeal, in learning the treatment of diseases, may be surpassed at a single effort, by minds illuminated neither by native intelligence nor by appropriate and protracted studies.

No one who is acquainted with the history of medicine, can for a moment doubt the liberality of its followers in their intercourse with other conditions of people, or the readiness with which they make large sacrifices for the benefit of mankind. Most of the improvements in medicine are concessions to the cause of humanity. Physicians, in becoming the instruments of the dissemination of the vaccine disease, lost, by the consequent disappearance of small pox, their most fruitful source of revenue, and an employment to thousands. Many examples of a similar description might be adduced, but this is sufficient to illustrate the disinterestedness and humanity of the profession: and to furnish a reply to a charge of selfishness, when its members are fastidious in adopting, or even reject nostrums and secret remedies; for the reason that they know not what they prescribe, and are always exposed to the chance of administering articles whose powers may vary continually from the caprice of their manufacturers.

The Medical Society, from the foregoing considerations, and with the view of gaining information upon the effects of the more popular empirical articles sold in Philadelphia, resolve as follows:—

1st. That a Committee of five persons be appointed, to inquire into the remedial value of the more prominent specifics now sold in Philadelphia, under the assumed names of Panacea, Catholicon, Minerva Pill, &c.

2d. That the order of inquiry of this Committee shall be, to address letters to the several regular practitioners whose certificates have appeared in behalf of such specifics, requesting a detailed statement of the information they possess in regard to the names, constitution, age, and previous treatment of the patients alluded to; of the diseases they have found those medicines most successful in, and of the diseases in which they have found them to fail.

3d. To obtain from all the practitioners of the city who have witnessed the exhibition of such medicines, well authenticated documents in detail concerning their effects in the several diseases for which they are given.

4th. To solicit from intelligent practitioners in the country, and members of this society generally, communications of a similar purport.

5th. To raise, by contribution and annual subscription, a fund to defray the expenses of the aforesaid Committee.

The Society adopted the foregoing preamble and resolutions, and appointed Drs. Horner, Harris, Jos. Klapp, Meigs, and Bell, as the committee on them, and with power to fill up vacancies.

Extract from the minutes.

JNO. R. W. DUNBAR, *Recording Secretary.*

CIRCULAR OF THE COMMITTEE.

Hall of the Medical Society of Philadelphia.

SIR,—We have the honour of calling your attention to the foregoing preamble and resolutions of the Medical Society, adopted at the meeting of June 16th, 1827. As these resolutions bear upon points all important to the interests of humanity and to the comfort and dignity of the Medical Profession here and elsewhere; it is hoped that you will make an early communication to the Committee of all such information as you possess and can with propriety impart. In addition to the information indicated by these resolutions, we should be pleased to learn the whole number of cases that you have seen treated with such medicines, or the treatment of which, properly authenticated, has come to your knowledge, and the evident effects produced on the functions of the system by them.

It has been thought unnecessary to present further interrogatories to you, from an impression that your own intelligence and candour will dictate the course, in your answers, best suited to instruct the Committee, and to qualify it to execute its duty in a way satisfactory to the society, and conducive to the end proposed.

We have the honour to be,
Very respectfully, your ob't serv'ts,
W. E. HORNER, *Chairman.*
THOS. HARRIS,
JOS. KLAPP,
CHAS. D. MEIGS,
JOHN BELL.
Committee.

MEDICAL CONVENTION, NORTHAMPTON, MASS.

[We have been politely furnished by the editors of the Medical Recorder, with a printed slip, containing an account of the proceedings of this Convention, from which we make the following abstract.]

The Convention met on Wednesday, the 20th of June, at nine o'clock in the morning, and continued its meetings by adjournment, until the evening of Thursday the 21st. The Delegates present, were:—

A. Mann, M. D. President of the Maine Medical Society.

John D. Wells, M. D. from Bowdoin College, Maine.

James P. Chaplin, M. D. from the Mass. Medical Society.

Henry H. Childs, M. D. and *Stephen D. Williams*, M. D. from the Berkshire Medical Institution.

Reuben D. Mussey, M. D. from the Medical Institution, Hanover, New Hampshire.

M. Spalding, M. D. from the Medical Society of New Hampshire.

Samuel B. Woodward, M. D. and *Geo. Sumner*, M. D. from the Medical Society of Connecticut, and

Usher Parsons, M. D. from the Medical Institution, Brown University.

James Jackson, M. D. of Boston, was appointed President, and Reuben D. Mussey, M. D. of Hanover, N. H. secretary.

Two distinct subjects came before the convention; first, the qualifications requisite for the commencement of Medical Studies; and secondly, the Medical Studies, and other qualifications, requisite to obtain a license or degree.

It was agreed to recommend, that every student of medicine, who has not received the degree of A. M. shall present to the respective boards of examination of the several states, and of Medical Institutions, satisfactory testimonials, that, before the commencement of his medical studies, he possessed, in addition to a good English education, sufficient knowledge of the Latin language to read the Eneid of Virgil, and the select orations of Cicero, and a respectable acquaintance with geometry and natural philosophy.

Candidates for a license shall have studied, under the direction of some respectable licensed practitioner, three years, if possessing the degree of A. M., or four years, if without that degree. They shall also have attended one course of lectures, in some incorporated medical institution, within the period of their medical pupilage, on the following branches, viz: Anatomy and physiology, surgery, chemistry, materia medica, the theory and practice of physic, and midwifery. On presenting themselves for examination, they shall produce certificates from the physician with whom they studied, that they have complied with the above requisitions; and furnish satisfactory evidence of good moral character, and of having attained the age of twenty-one years. They shall, also, write and defend a thesis on some medical subject

Candidates for the degree of Doctor of Medicine, besides complying with the above requisitions, shall have attended an additional course of lectures, shall publicly read and defend a thesis, and be examined on botany and medical jurisprudence.

It was made the duty of the several delegates, to submit the foregoing resolutions to the medical societies and institutions which they represent, for their approval. If approved of by a majority, they shall go into operation; and a perfect reciprocity shall subsist between those bodies that shall adopt them for future regulation. They shall also be sent to all the other medical societies and institutions in the United States; and, if adopted by them, the principle of reciprocity shall be extended to them also

A committee of correspondence was then appointed, consisting of Doctors J. Jackson, J. C. Warren, and J. P. Chaplin, to make these communications, and to publish the proceedings of the convention, of which 5000 copies were ordered to be printed.

LIST OF EXCHANGES.

Johnson's Medico-Chirurgical Review.
London Medical and Physical Journal.
Quarterly Medical Review.
London Medical Repository.
Edinburgh Medical and Surgical Journal.
Quebec Medical Journal.
Mercurio delle Scienze Mediche. (Leghorn.)
Giornale Critico di Medicina Analitica. (Milan.)
Western Medical and Physical Journal.
Philadelphia Medical and Physical Journal.
Philadelphia Monthly Journal.
New England Medical Journal and Review.
Boston Medical Intelligencer.
Journal de Physiologie, par F. Majendie.
Journal des Progrès des Sciences et Institutions Médicales en Europe, en Amerique, &c. &c.
Revue Médicale.
Archives Génerales.
Revue Encyclopédique.
Bulletin des Sciences Médicales.
Nouvelle Bibliotheque Médicale.
Le Propagateur des Sciences Médicales.
Journal Géneral de Médicine.
Journal Universel des Sciences Médicales.

In addition to the above, the Editors have access to the New York Medical and Physical Journal, the Philadelphia Medical Recorder, the Annales de la Médecine Physiologique, by Broussais, with which exchanges have not yet been effected: also to the several Journals received by the American Philosophical Society, and other scientific institutions, in this city, from several of which matter has already been selected for our pages. They are in daily expectation of another Italian, and of three German Journals, which have been unexpectedly delayed for the want of direct communication with the proprietors, and they intend continuing to perfect, as rapidly as possible, the system of exchanges which has been so liberally met, and which has been, and still is, far more extensive than any hitherto effected in our country.

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THE

NORTH AMERICAN

Medical and Surgical Journal.

OCTOBER, 1827.

ORIGINAL COMMUNICATIONS.

Article I.—*Observations on Delirium Tremens, or the Disease improperly called Mania a Potu, and produced by the Cessation of the habitual use of Alcohol and other Narcotic Substances; with an Attempt to set the Treatment of that Affection upon a stable Basis.*

By B. H. Coates, M. D. &c.

[Concluded from page 52.]

OF THE TREATMENT.

The treatment generally recommended in the United States, where this malady is unfortunately the most fully known, is a *combination* of several modes of practice; or, as it is frequently expressed, in a very vague manner, one "varying according to the state of the system in different cases." That this is, in the abstract, correct, is unquestionable; but when it comes to be applied to a change or fluctuation in treating those essential morbid changes which are considered as constituting a disease, and to be used to justify the practitioner's not having made up his mind as to a preference of one fundamental principle or method of treatment, over another, and to hide, perhaps from his own mind, a confusion existing among his ideas on the subject—when this is the case, we are compelled to disapprove of it. If there be any circumstance or thing, to which the name of a disease can be hed. it ust consist of certain deviations from health, of a cifi e, liable to be variously combined with other peculi- es aining the same essential character. The task of logist should be to define and describe this; and then the nt peculiar to it may be ascertained from experience, pre- the necessary privilege of varying it according to the ent combinations of circumstances under which it may occur. , a um tremens may exist, complicated with a bilious , or an inflammation of the lungs; and it is matter for leration, how far these cotemporaneous affections may, and to, qualify or forbid the treatment; but notwithstanding this, roper treatment for the delirium itself, if it can be permitted, lways of the same nature.

here is a peculiar state of peculiar organs, which we have voured to describe in the preceding sheets, capable of ying life by its own agency, and fully meriting the most study from the physician. To define this, and ascertain successful mode of treatment, is a task, the utility of which liminished by the complications to which the disease is sub- Other circumstances may differ, but this is the radical and ial point; nor is it possible to understand and correctly treat compound cases, unless we previously form a clear apprehension of the simple ones.

Bred in the Pennsylvania hospital, my first experience was of the stimulo-narcotic treatment; and the gentlemen who administered it seemed to place nearly or quite as full reliance upon the stimulating, as the narcotic portion of their remedies. The latter were not pushed to such heights as they have since been. The disease, at this period, was frequently fatal; and I well remember being at one time shocked by the deaths, in succession, of three patients admitted with fractures. I observed, however, at this time, that those who recovered, invariably obtained, as the pledge of returning sanity and health, a long and quiet sleep, which those who died never experienced.

The resident pupils of the house, since then replaced by graduates in medicine, have at all times had a very important and responsible charge; and in no instance more strikingly so than in the case of the disease under consideration. Entrusted, regularly, with the superintendance of the patients during the long intervals between the ordinary visits of the physician, (made twice a week,) and acquiring, during their residence of five years, a considerable amount of practical skill, they found much trust reposed in them even when the physician in attendance visited more frequently. A patient, belonging to the ——— theatre, was referred to my charge, during a delirium tremens of extreme violence. From a form at the commencement entirely intermittent, his delirium had become continued, increased greatly in violence, and resisted the action of very large doses of opium, carried, in one evening, beyond the amount of twenty grains, and accompanied by considerable quantities of alcoholic drinks. In this situation, his pulse rapidly declining, while the delirium was regularly increasing, and after the disease had continued upwards of a week, I judged, that, according to ordinary experience, the patient must certainly die, unless he obtained sleep. I gave him six grains of powdered opium every hour, visiting him, and carefully watching the effect of the sedative at every dose.* It was not till thirty-nine grains had been thus administered, that a decided tendency to sleep was observed. Rest, however, not being obtained, another dose was given, making forty-five grains; and full sleep was produced within another hour. Next morning, the patient awoke *perfectly rational.* Delirium returned, in a slighter degree, for several nights following; and minor doses of opium continued to be given for a long time after; longer than I now ever find necessary. But the patient's life was saved; and he recovered sufficient strength to struggle with a long and severe surgical disease, to regain his health, and return to his professional employments. He subsequently died of yellow fever, at New Orleans.

About the same time, another patient was recovered by the administration of 400 drops of laudanum in five hours; a larger dose than I had then seen given in the disease. The impression made upon my mind by these two cases was such, that I acted afterwards on the principle, that sleep must be obtained at all hazards; and this has produced a success, which, as time advances, has the more confirmed me in the belief of its propriety.

At this period, the case first mentioned above, was that in which largest nount of opium had been given, in this disease, in my wledge. Since then, Dr. THOS. T. HEWSON informs th as administered, within twenty-four hours, as much wo grains; and Dr. OTTO has also used it in very large of them with the most gratifying success. The effect treatment adopted at the Pennsylvania hospital, has been s to satisfy the minds of the physicians, that no advantage kely to ensue from changing it for the emetic, or any other ce. This treatment generally includes the administration of e or less considerable amount of alcoholic stimulants; but y depends upon opium, and other tranquillizing remedies.

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* It is not very material to remark, that one dose, from an apprehension of approaching sleep, was diminished to five grains, and the following one enhanced to seven grains. Three grains were given a short time previously.

the success which this practice has obtained, in my own , I dare hardly speak. Wherever time has been allowed e administration, by repeated doses, of a large amount of n, this practice appears to me to have been *always* successful ing the delirium. If, as has by no means frequently been se, the patient subsequently died of an inflammation of some s, I did not consider this as at all impeaching the propriety urative power of the treatment. One disease had been cured: er might still possess the power of destroying life. One , at any rate, I can assert with the utmost confidence; that I never yet seen a patient die of this delirium, in whom a sound, continued sleep had been produced, and made to recur at the natural intervals, nor one patient recover, in whom this did not previously take place. For an indication as to practice, this is sufficient—sufficient to show that sleep is the *sine qua non* to a recovery.

A review of the comparative success claimed by different practitioners, will throw additional light upon the superiority of the narcotic treatment, so far as employed. Dr. ARMSTRONG, at first, lost four out of sixteen, or twenty-five per cent.; but after he had adopted his improved practice, the mortality among his patients was diminished to three out of twenty-six, or 11½ per cent. very nearly.* Dr. KLAPP's mortality was twenty-one per cent. or nearly the same with that at which Dr. ARMSTRONG began.

Dr. SUTTON lost four out of twenty-two of his patients, or eighteen per cent. Of these, he remarks that one died within six hours of his first visit; and in two other cases, Dr. S. believed that life was prolonged by the use of the remedy.

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* Typhus fever, &c. 2nd Am. Ed. p. 363.

Dr. **Pearson** states, that, of ninety-three patients whom he attended for this complaint, in the vicinity of Newcastle, he recovered *the whole!* Mr. **Maxwell**, of Newcastle, is also described by him to have cured forty cases; and the intention of the narrator seems to be to convey the impression, that he lost none. This is, however, not stated in distinct terms; and we are bound to exclude him from our more strict comparison. Dr. **Snowden** has informed me personally, that he lost only three out of seventy-three. Mr. **Blake**, of St. Vincent, lost one in ten, after a stimulo-narcotic treatment, without bleeding, but including blisters, shaving of the head, &c.*

Of my own success, I cannot furnish an accurate statement, for want of written records.

The relative success, then, of these different practitioners, without making any allowance for the variety of circumstances which influence the ratio of mortality, but giving the whole in gross, will stand as follows.

	Recoveries.	*Deaths.*
Dr. **Pearson**,	The whole.	None.
Dr. **Snowden**,	96 per cent.	4 per cent.
Mr. **Blake**,	90	10
Dr. **Armstrong**, improved treatment,	88½	11½
Dr. **Sutton**,	82	18
Dr. **Klapp**,	79	21
Dr. **Armstrong**, first method,	75	25

Of these gentlemen, Drs. **Pearson** and **Snowden** regarded the production of sleep as absolutely necessary to the cure. Dr. **Armstrong** states that he "fell into the error of administering opium indiscriminately in every stage and variety of this complaint," and is anxious that this supposed error (a happy one, we conceive, for his patients) should be corrected in his book, for the sake of others. At the same time, although he tells us that experience has taught him, that in robust subjects who are only occasionally intoxicated, opium "should hardly ever be exhibited, until the bowels have been freely and frequently evacuated;" he does not tell in what that experience consisted, but only states that he "*believes* that his success would have been greater, had he sooner known the necessity of this precaution;" adding, however, a little further wn, that in these very cases, purgatives "are most pernicious he advanced stage." These statements, as they stand, form a fession that it was the treatment with opium, calomel, and the m salt bath, or affusions, which was submitted to the test in practice; although, probably from analogy to other diseases, rom some theoretical views, he subsequently changed his mind pecting it.*

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* Ed. Med. and Surg. Journ. vol. 19, p. 497.

Dr. Sutton's was, as we have said, the simple opium practice; but not, in general, pushed to very large doses, or with a determined intention to obtain sleep at all hazards. In 13 cases, where he details the amounts given which produced sleep, and a more or s permanent recovery, these were from 80 to 120 drops of ture of opium, from 4 to 34 grains of the extract, and in one ance, 120 drops of the tincture, followed by several doses, each consisting of two grains of extract.. In several of Dr. S.'s cases, severe complications existed: thus, among sixteen narratives which he has given us, there were three of apoplexy and two of insanity; and he also mentions two of scarlatina, all occurring among the twenty-two on which he founded his essay. He sometimes used blood-letting. Dr. Klapp's practice depended mainly upon emetics. The first mode of treatment adopted by Dr. Arm[illegible]rong, the most fatal of those whose results we have found on record, is not described; and we can only conjecture that it was probably the one most general among the British practitioners, previously to the publications by Drs. Burton Pearson, and Sutton, viz. that proper for common febrile delirium, or simple phrenitis.

My ingenious friend, Mr. George Spackman, has attended, singly and in consultation, nine or ten of these cases, which recovered under the opium practice, and lost one in whom this was postponed till after the operation of a severe purge.

This investigation goes far to show that the general success was nearly in proportion to the extent to which opium was used. Of course, it must require modification and combination, according to the variety of cases; and Dr. Armstrong's calomel unquestionably may, in some instances, have been appropriate and useful. Yet the greatest success of all, a success almost miraculous, is ascribed to the simple opiate practice, carried to its fullest extent, and uncombined with calomel, baths, or any considerable amount of alcoholic drinks, by Dr. BURTON PEARSON.

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* Vide Typhus fever, p. 367.

This extraordinary claim to universal success, in the treatment of a dangerous disease, is of such a character as to demand a particular consideration: it is such as might, in many minds, naturally awake a doubt of the author's adherence to the truth. Yet the evidence I have drawn from nature, combined with the respectability which Dr. ARMSTRONG and others evidently attribute to Dr. PEARSON's character, sufficiently convince me that an indulgent analysis of his little pamphlet, or rather handbill, never intended for general circulation, will yield us a view of the subject which will abundantly explain his statements, and obtain the fullest credence for them. Dr. PEARSON is describing a peculiar disease, for which he had been made acquainted with a successful remedy; and his space did not admit the treating of complications. He therefore confines himself to simple delirium tremens. I am strongly inclined to the opinion, that, in every case, this affection can be removed by the opiate treatment; although the patient will occasionally die of the complications. A man shall have the delirium, combined with gastritis, or acute hepatitis; and during, or after the cure of the former, he shall succumb to the abdominal affection. But it should be recollected that the same must be the case with the other practitioners cited above; and such a statement therefore, though in the abstract not incompatible with veracity, is incorrect, and misleading as a means of comparison with others. The only just mode of judging, is to state the whole number, including all accidental circumstances, which can be separately explained. The writer of these sheets is bound to say, that, with this qualification, he gives full and entire belief to the assertions of Dr. PEARSON; and is satisfied that it is in the power of opium, at the present day, to succeed in almost all cases, where the complications are not very severe, and that it may easily have cured in a large number successively, without a single failure.

In addition to the above evidence of the powers of opium, I am enabled to cite that of Dr. Neill, who has obligingly communicated to me th rratives of eleven cases, taken, in the order of time, from a v large number, which have fallen under his care in the P nia state prison. From these, and from his enlarged experience, Dr. N. has come to the conclusion, that, in fair cases, opium is comparatively a certain cure for delirium tremens; "that ium is, in mania a potu, what bark is in intermittent fever." h are his words, in the paper which he has permitted me to nd to the present one.

ut a doctrine more startling than the gastric theory, has been anced: one which seems to go far to represent as idle all our squisitions relative to the treatment of this disease. We have ng heard, with, we confess, but little attention, an assertion which as circulated widely among the physicians of the city; but which we nevertheless prefer to quote from the Philadelphia Journal.* It is there stated, upon the authority of Dr. CHAPMAN, "that the late Dr. KUHN was known to declare, that after an extensive trial of different plans in our hospital, he found none to answer so well as confining the patient in a dark cell, to leave the disease spontaneously to work itself off!!" If this opinion of Dr. KUHN be correct, and if he tried the modern practices, much have they to answer for, who have furnished the heavier items of the table of mortality in a preceding page. It is charging them with directly *causing* a large number of deaths by their injudicious practice. We have but two ways of reconciling this allegation of Dr. K. with his well known character as a practitioner. One of these is to ascribe it to a certain habit of loose conversation in which many very eminent physicians have indulged, permitting them to undervalue their own art—a practice which is nevertheless expressly condemned by the writers on medical ethics, and which is really the commission of a sin. The other is the recollection that the opiate and stimulo-narcotic practices were then probably unknown, at least to Dr. KUHN; and the presumption is, that, like most of the European practitioners, he confounded the disease with phrenitis. To undertake the cure of delirium tremens by bleeding, cupping, and purging combined, might indeed have been far less successful than leaving them to themselves. Had Dr. KUHN retained the opinion here ascribed to him, after he had given a trial to the narcotic practice, he would hardly have taught the latter in his lectures, and, in particular, recommended it to his pupil, Dr. William Currie. That this was the fact, will appear from a note with which I have been favoured by my friend, Dr. Condie, who was a pupil of the latter physician, and whose communication is subjoined to this paper.

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* Vol. 3. p. 242, foot note.

It appears unquestionable that a large proportion of cases in this, as in many other diseases, would recover by the unassisted efforts of nature. In no other manner can we explain the recovery of the great majority when subjected to such inconsistent modes of treatment as those we have enumerated. Again, it is well known in the port of Philadelphia, that it is common for sailors, on first leaving the scene of their frolics for a new voyage, to be affected with a degree of this disease, and to recover under the care of the captains of their ships. It is familiarly known to these by the appellation of "*the horrors;*" and it appears to be mostly treated with strong drinks, and occasionally without any: yet deaths are a rare occurrence. It should, however, be borne in mind, that men exhausted by the last stages of debauchery, are seldom likely to be selected, or to offer themselves for the service of shipping; our crews generally consisting of the intemperate indeed, but of the young and robust, who have still strength to contend with disease. Those sea captains with whom the author of these sheets has conversed upon this subject, have all made the report, that sleep invariably preceded the return of health.

In the place just referred to, will also be found the opinion of Dr. Chapman on the use of opium. "Sleep is the *sine qua non* in the cure of this species of mania, and when [this is] effected, all difficulty is at an end."

Having thus endeavoured to show that the use of opium rests upon abundant evidence, in addition to our own testimony, we shall proceed to make a few observations on the principles of its administration. To produce any impression of whatever kind, during this disease, opium must be given in doses increased enormously beyond those which are requisite for ordinary purposes. Five or six grains alone, are, in a case of any severity, absolutely a nullity—they will not drive away a single spectre. The successful amount with me, has generally been from twelve, to twenty-eight, or thirty grains; but in an honest judgment, I can assign to it no limit. I have never seen, read of, or heard of, an instance in which it was productive of any harm. Nevertheless, from this very fact, that there exists no experience of the effects produced by an over dose of the remedy in this disease, it is rendered the re necessary to use the utmost precaution to avoid them. icians have been so careful as never to venture upon them; a complete *terra incognita*, and we cannot judge how we may approach the concealed rocks of destruction. The nistration of such a remedy should be watched with the more r, because we know not whether poisonous effects will be uced by an arithmetical, or a geometrical increase—whether grains, or thirty grains in addition, are sufficient to endanger the patient's life.

The only rule by which I would be, and have always been guided, is the following. A certain effect is to be produced, *coute qui coute;* and we must go on exhibiting opium in considerable doses, at such short intervals as are sufficient to permit its accumulation in the primæ viæ, until enough has been taken to produce sleep. I have generally given it every hour; but when sleep appears actually approaching, a somewhat longer interval may be allowed, to ascertain the fact, without much hazard of defeating the plan of cure. If the case be a slight one, I have left doses amounting to five or six grains with the attendants, directing them to proceed with it, either until sleep was produced, or the medicine had all been taken. Upon the failure of one trial like this, a much larger amount must be employed; and where considerable doses are given at every time, it is indispensably necessary that the physician should superintend their effects himself, visiting the patient after every fresh administration, and watching for any disposition to drowsiness. Where this has not yet appeared, there is not the least danger to be apprehended; as we believe it may be safely denied that there is a case on record in which any injury was sustained.

When a sound sleep has been obtained, if of eight or ten hours' duration, the patient has, so far as the experience of a large amount of cases has gone, and as a reference to books has confirmed it, uniformly awakened with a sane mind. A change like this, and taking place, too, in eight or ten hours, is so desirable to the sufferer and his friends, that I know of no adequate grounds for postponing it. No *periods* or *stages* of the disease should be at all considered in the case—the cause of distress is an undue excitement of the brain; and opium can, and therefore should, immediately be made to quiet it. Entertaining, therefore, these opinions, I have never waited to premise evacuants, but had immediate recourse to that invaluable gift of Providence, at the moment I was called. The disease being often intermittent, it is apt to return on the following evening. Where this is the case, and not otherwise, a dose of opium must be then given; its quantity rarely need exceed, even in very bad cases, four or five grains. A similar care should be exercised, for several nights. Nothing further, so far as I know, is absolutely necessary to the cure; but there are a few points of minor importance, to which the physician will not fail to attend: these are, opening the bowels, which the opium always renders costive; and the administration of some very gentle tonic or stimulant, to promote the recovery of strength. For the first of these objects, an ounce of salts, or in weak subjects, an injection, will be sufficient: the latter is very frequently entirely unnecessary, since so far is the disease from consisting in irritation of the stomach, that appetite and the rapid recovery of health, very generally, immediately follow the cessation of the delirium, and the omission of the remedies employed.

The best form for the administration of narcotics, is powdered opium. Laudanum is so familiar to the ordinary attendants of the sick, that they discover the great amount of the doses given; and the alarm arising from this cause is often extremely troublesome and may entirely defeat the cure. Laudanum may, however, be given in mixtures, merely for the purpose of leaving the physician uncontrolled by the fears of the friends of the patient.

Against pills of opium may perhaps be brought an objection frequently made by Dr. PARRISH, in his clinical lectures at the Pennsylvania hospital; viz. an uncertainty as to the length of time requisite for them to dissolve, and a consequent possibility of their accumulating to an unsafe amount within the primæ viæ, while the visible indication of their activity is only in proportion to that part of them which has actually become liquefied. I have never, however, been aware of ill effects from this cause.

We shall speak of other narcotics and antispasmodics. Of combinations of another description we conceive that Dr. Sutton has expressed th[illegible]eal character, when he tells us, with much sincerity, that [illegible] "more to be considered as given for the sake of for[illegible]is depended upon to produce any material effect."*

We have been thus copious upon the subject of opium, from the sincere belief that it constitutes the whole substance of the treatment; that all other means are mere appendages to it, and might be dispensed with. Though, however, this was the main object of the present essay, justice can yet be done to those other remedies which are generally used or recommended.

Of Blood-letting.—"Blood *may* be drawn," says Dr. Sutton, if the patient be plethoric; but it is "not absolutely necessary in any case of this disease, when the paroxysm is fully formed." He "*cannot say that its use has rendered the employment of opium less successful;*" and it "may be employed when strong evidence of plethora exists." Yet, he tells us, "when it has been used, and principally relied on, I have observed a fatal termination of the disease in almost every case; though the indication, as to habit, for its use, appeared strong and decisive."† Anceps remedium, indeed! but here there exists an alternative, and we are not forced to have recourse to this. Dr. Burton Pearson finds that it is twenty to one against a patient's recovery, if he is managed by the depleting treatment. Dr. Armstrong tells us that he has "seen it (blood-letting) beneficial in the beginning of numerous cases; yet he is fully persuaded that there are not many instances where the lancet is really requisite."‡ Dr. Potter, in his notes, states that, in what he calls "*febris temulenta*," he has employed bleedings of every amount, from one to forty ounces; and has frequently drawn 70, 80, or 100 ounces in the course of three or four days, with the happiest effects. We are sure that this eminent physician, whose worth we have the advantage of knowing personally, cannot design the same cases, under the use of this term, as those which are meant by the authors previously quoted, or by the writer of this memoir. He speaks of symptoms threatening apoplexy, and of a ferocious delirium, as characterizing the complaint he describes. The delirium tremens, as is remarked by SUTTON, is always good-natured. Dr. POTTER appears to us to have included inflammatory fever, and actual drunkenness, and perhaps a common phrenitis, within the too lax bounds of his epithet, *febris temulenta;* and we the more regret this, as his notes, which immediately follow the essay of Dr. ARMSTRONG, in our ordinary edition, have been applied, far and wide, with all the sanction of his name, to the delirium tremens.*

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* P. 60.

† Tracts on Delirium Tremens, &c. pp. 66, 67.

‡ Typhus fever, &c. p. 364. These expressions, which sound rather contradictory, occur, the one immediately after the other, in the text.

Dr. BROWN coincides in the opinion of Dr. ARMSTRONG, which he recites. Like most of those of the latter writer, Dr. B.'s expressions are, with the above exceptions, all negative: he tells us in what cases he found that it should not be used, but never positively where it should be. He evidently shows a strong disinclination to it; but seems to feel that venesection was expected of the physician, and confines himself to preventing its too free employment.†

Dr. KLAPP, and most of the other writers quoted, say little or nothing respecting blood-letting.

With such evidence before us, we cannot refrain from the inquiry, why resort to such a dangerous or doubtful remedy? With the exception of Dr. POTTER, every one acknowledges it to be highly improper in the great majority of cases; some men of very large experience forbid it altogether, and no one is found willing to say that it actually does any good! Why not prohibit it at once? Are we under any obligation to employ blood-letting? And what useful purpose is it to answer, when it is employed? My own experience leads me distinctly to say, that it does not appear to have the least discoverable effect, positive or negative, upon the delirium; and that it actually does harm to the patient, by diminishing his strength, an item highly necessary to the cure.

An apprehension long prevailed at the Pennsylvania hospital, that the too free use of bleeding, in patients predisposed to this complaint, produced or increased it. To this we have alluded in another place. I have, as there stated, never met with any evidence going to prove this supposition correct; though the debilitated state of the circulation which exists in the majority of cases, has frequently forbid venesection. In such instances, I have generally [illegible]d, with regard to this remedy, very much as in ordinary s[illegible]f disease, always taking into consideration that a consid[illegible]egree of debility was to be inferred from the patie[illegible]revious habits, and recollecting the necessity of ensuring sle[illegible] opium, as a preventive.

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* Armstrong on Typhus, &c. 2nd Am. ed. p. 377.

† Am. Med. Recorder for 1822, p. 204.

[illegible]*ps* to the head have been employed in the Pennsylvania [illegible]tal, by Dr. Parrish, in patients under my immediate attention; [illegible] with great advantage. *Blisters* have also appeared of still [illegible]ater service, as they did not equally weaken the patient. The [illegible] shaving of the head was productive of no perceptible benefit.

The only author I have consulted who speaks of the effects of blisters in a manner that seemed to indicate a particular attention to them as seen in practice, is Dr. Sutton, and his opinion is directly contrary to that which I have just expressed. He "never saw a blister employed in the paroxysm that did not occasion great irritation, and augment it considerably." He employed them in consequence, during the remission; still without observing any beneficial result; and he confesses, with a manly candour, that this was done from form, and a desire, as far as possible, to imitate other practitioners. We conceive, not only that many of us have acted as Dr. Sutton thus describes himself to have done, but that this mode of procedure is, to a certain extent, proper, as tending to prevent a physician from relying, with too much independence, upon his own experience, to the exclusion of that of others.

Of *emetics* we have had no experience. To use the argument of an eminent clinical teacher, the success was so good, that it has never been felt necessary, in the Pennsylvania hospital, to make trials of the emetic treatment. On their general employment, as a means of cure, we have already sufficiently commented. It would be an unreasonable scepticism to call in question, in the face of the reports of so many respectable physicians, their power to diminish, and occasionally to cure the disease.* I am disposed, with Dr. Brown, to ascribe their usefulness to a direct effect on the nervous system. Certainly, they cannot produce the relief by curing a gastritis which has already nearly recovered of itself; and this, by removing no more irritating substance than a quantity of thick, glairy mucus. Many therapeutists would say that emetics must be positively injurious in such a case. On the other hand, all vomits produce languor, and ipecacuanha is known to cause somnolency; and there appears no obvious improbability in the supposition that it is by an agency of such a nature that sleep and a cure are effected. We cannot, however, undertake to deny that emetics may be beneficial through their agency on the circulatory functions, as we have already seen to be the case with cups and blisters. Perhaps, as several eclectic practitioners have remarked, emetics may be useful to prepare the stomach for the administration of opium. Certainly, if that viscus contain a large quantity of glairy matter, which an emetic will discharge, a more speedy operation may be expected from an opiate, if the vomit be premised; but whether this be on the whole advisable, is not exactly the same question. I apprehend that the emetic is not at all necessary; as a slight increase of the dose of opium will, without any subsequent disadvantage, produce the same effect; and that the emetic is a rough remedy, calculated to increase the irritation of an already deranged stomach, and is therefore positively objectionable.

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* Emetics are recommended by Dr. Darwin for "*delirium ebrietatis.*" "M. M. Diluting liquids. An emetic." Zoonomia, v. 2.—II. 1. 7. 3.

I would recapitulate the objections to the systematic use of emetics, as follows.

1. Experience has shown, according to the statements of those who have used and recommended different modes of treatment, that this is decidedly the least successful in preserving life, with the exception of the treatment for phrenitis.

2. Emetics leave the patient more debilitated than any other treatment. His stomach is already deranged by debauchery; and while it is recovering, we subject it to the action of antimoniated tartar and ipecacuanha.

3. Deaths have been clearly produced by them. Dr. CHAPMAN informs us that two cases came under his notice, in which, emetics having been "exhibited where there was much prostration of power," the system would not re-act, and the patient irrecoverably sunk.* Several other cases had been reported to him; and he seems inclined to consider all very large doses of emetic tartar as poisonous. Cases have been mentioned to me, where

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* Philadephia Journal, vol. i. p. 196.

the excessive purging which this remedy is liable to produce, when given in large amount, or in more moderate quantities, when retained by the stomach, was followed by dissolution. While this essay was in preparation, another case of death, following the use of emetic tartar and ipecacuanha, at a short interval, and with symptoms of irritation, has been obligingly communicated to me by Dr. Brewster, of this city. The reader will find the narrative at the end of this paper.

4. Finally, the whole philosophy and history of the disease point out narcotics as the remedy; and render it not improbable, that it is only by acting as narcotics, that vomits are capable, by themselves, of curing it.

Purgatives, employed by Drs. Sutton, Armstrong, Potter, and Brown, if given together with opium, seldom act till the narcotic effect of the latter has subsided. When the patient has had his critical sleep, and is out of all danger, they then operate. Little useful effect should certainly be anticipated from such a tardy remedy; unless it be the prevention of costiveness during the convalescence; and this object may be obtained with the utmost facility, by the use of mild laxatives, or enemata, after the sleep has terminated. These remarks extend to *calomel:* the additional risk of using which is not justified by any connection between this disease and the liver. Calomel has no influence whatever over this disease of the brain; and when a hepatitis, or violent abdominal inflammation really exists, it is seldom necessary to combine the treatment of the two diseases. Yet it may be so: and where this is the case, and to the original danger is superadded an urgent and severe inflammation, the probability of recovery is but small.

Camphor, *asafœtida*, *Hoffmann's anodyne.*—I have given all these substances, and watched their effects. I should characterize the first two as powerful agents in restoring the mind to its equilibrium. With the latter I was less successful; but this very probably was from not having discovered the necessary dose. The operation of camphor and Hoffmann's anodyne is easily explained: they are narcotics, and resemble opium. It seems more difficult to comprehend the effect of asafœtida; the ordinary exhilarating operation of which appears rather to resemble delirium tremens than to be contrary to it. Its power of producing sleep, however, is well known.

Camphor was used combined with opium in pills: asafœtida, in emulsion. The unnecessary complexity of these remedies, forms a solid objection to their use; and in the case of asafœtida, it is augmented by the difficulty of inducing the patient to take it. It cannot be pretended that any greater certainty in producing sleep is obtained by the addition of these substances to opium; and we can imagine no adequate reason for doing so, as the anodyne is, by this means, neither rendered more agreeable, nor corrected in any of its bad qualities.

Of morphia, and the other de-narcotised opiates, I have no experience; but I have seldom witnessed any very great suffering of the kind which these are intended to avoid, in the head and stomach. I do not doubt, however, that the comfort of the patient may frequently be much promoted by their use. Black drop has been highly recommended to me; but I have never tried it, from the want of an equal familiarity with its operation, in estimating the doses.

Decoction of hops.—Dr. Physick has found this remedy extremely useful: he has particularly employed it where there was a necessity for using a very large amount of narcotics. It was used in a few cases in the Pennsylvania hospital, during my stay there; and was thought to have contributed very usefully to the production of sleep. Dr. Jackson of Northumberland, Pennsylvania, writes me that he has placed much dependence on it, and considers it a very valuable resource.

Cold affusions.—This remedy, which resembles the ordinary practise of *pumping* on the heads of drunken persons, is highly praised by Dr. Armstrong; and by Drs. Ramsay and Gregson, as quoted by him. I have no experience of it. Dr. Jackson, of this city, has recently published a successful case of its employment. In the Edinburgh Medical and Surgical Journal, No. 52, Dr. Wood of Newcastle, recommends the free application of *cold wet cloths* to the head.

Ardent spirits.—Should the present essay have the effect to induce any physicians to dispense with this article in their methodus medendi, it will be an occurrence amply worth the trouble of its preparation. Ardent spirits still form an important portion of the means employed by many practitioners who also make use of opium. It therefore becomes an object of great importance

ether the use of such a destructive agent be really
o cure a man of delirium from intoxication, and
him from our public institutions with the intoxi-
m his hand, is truly remarked by one of our medical
s, to be combining a benefit with an injury to humanity;
e who has read Dr. Emlen's eloquent paper in a late
of this Journal, can fail to be impressed with a desire to
f possible, colouring the use of such a baneful enemy of
nd with the pretext that it had, at one time, been recom-
by a physician. Now Dr. Klapp's papers abundantly
hat a great majority of patients can recover without these
s; and Drs. Pearson and Sutton, who were so successful
the opium practice, never used them at all, unless incident-
Dr. Armstrong gave them in small quantities. "It will
m be necessary to give much *wine* or spirits, even to the
st drinkers."* I have recovered, I am confident, fifty cases,
ut allowing them any. This is certainly sufficient to dis-
e any *necessity* for its use.

hat a large amount of distilled spirits will cure many cases of
um tremens, I have no doubt;—it is generally the abstrac-
of this substance which has caused the disease. To produce
desirable effect, however, they must be allowed in sufficient
quantities to occasion sleep; which is nearly the same thing as saying that we must make them dead-drunk. There is no doubt that many cases which occur in tippling shops, are thus cured by the patient himself, whose vis medicatrix then shows itself very strongly by a desire for the remedy. Such, however, will never unnecessarily be the practice of physicians; they know that opium will produce the same effect with less injury to health and morals.

I have often and carefully watched the effects of the more moderate doses of distilled liquors which it is common to administer to such patients; and have come distinctly to the conclusion that they possess no sensible influence at all. They neither diminish the violence of the patient's delirium, nor in the slightest degree increase his strength. It is well known that in progressive fatigue, these substances exhaust the strength sooner than it would otherwise fail; and such has appeared to me to be the case in delirium tremens. The only tonic which can be of any service during the attack, is *rest*. Now we can produce this desired effect with far more certainty and at a far less expense to the system by opium than by ardent spirits; and I can imagine no possible reason for combining it with a worse article. Could a practitioner be influenced by a desire to appear more complex and scientific in the treatment, this effect would be produced with far less violence to good principles, by the use of innocent disguises.

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* P. 366. There is no trifling difference, indeed, between a small quantity of wine, and a pint or a quart of whiskey per diem, as is sometimes allowed.

Ammonia has been given, I cannot tell with what object. There is a remaining gastritis; and the patient requires not excitement, but calming remedies and quiet. I have never seen it productive of any service, nor, it must be confessed, of much injury.

In the convalescence, however, after sleep has been procured, and the delirium has ceased, or only returns in a milder degree, at night, to be checked with smaller doses of opium, some gentle stimulant is frequently useful, to accelerate digestion, and the recovery of strength. Appetite in general immediately returns, and the restoration to an ordinary condition is not slow; but the stomach seems to be in a weakened state, and is troubled with dyspeptic symptoms, which are greatly relieved by a mild stimulation. For this purpose, the best adapted one with which I am acquainted, is powdered capsicum, given in pills. It achieves the object in view in the most complete manner; and has this additional advantage, that it does not resemble the fatal poisons to which the patient is addicted.

The *prevention of the disease* is as simple as possible. It consists in nothing but the maintainance of sound sleep. If the patient's nervous system be in a natural state, when sufficiently fatigued he will sleep. If he cannot, his brain is unduly excited; and if this be produced by the abstraction of strong liquors or opium, the latter sedative will remove that excitement, and sleep is the only test of the reduction having been sufficient. This simplification of the *prophylaxis* will be found extremely useful in many cases. Where mania a potu, as it is called, is anticipated, from the patient's habits, and he is at the time labouring under an inflammatory disease, or a fracture of a large bone, there is not the least necessity for exasperating the one, or inflaming the other, by giving alcoholic drinks. Opium is altogether sufficient;

thus a remedy, which, as physicians know, can be
en in almost any inflammatory complaint.

tremens occurring in patients affected with fractures.

the most troublesome, and, unless very successfully
langerous complications in which this disease can exist.
ncy has been found so great at the Pennsylvania hospital,
idea has been entertained by many, that fractures were
citing cause of the delirium; and its mortality has, at times,
very great. I know of no one who has treated of it in print.
other, Dr. REYNELL COATES, gave a copious account of it in
se of private lectures on Surgery.

e principal peculiarity of the indications furnished by this
ination, is a greatly increased necessity of prevention, or of
edy cure. The terrific consequences of a wild delirium, in
ient suffering from a broken leg or thigh, may be easily
ed. He frequently escapes from his bed, and endeavours
k, seeming altogether insensible of pain in a limb which is
ntly bent nearly at right angles, and incessantly agitated, at
lace of fracture. Inflammation and mortification might well
red in such a state of things; but within my observations,
e the patient has not recovered, he has sunk exhausted, before
the local symptoms had reached any very great height. It would seem, indeed, as if the sensibility of the part to such injury were diminished.

One of the leading precautions necessary, is fore-thought, and the anticipation of the evil; ensuring sleep by the judicious administration of opium, where the previous habits of the patient give ground for fears of its occurrence. The sufferer from fracture, if of such a class in life, or under such circumstances as might produce an uncertainty in this respect, should be interrogated; or corresponding questions should be asked of his friends. My own experience would lead me to believe that the fear of shame will very generally prevent an acknowledgment, by the patient, of the whole amount of the liquor to which he is accustomed; and that it is safest to presume that the latter greatly exceeds his representations. When delirium actually exists, in patients affected with fractures, the greatest promptitude is required in ensuring sleep, as delay exposes the fractured limb to a greatly augmented injury. To confine the patient, in this situation, is an extremely difficult task, almost beyond the power of the mere exertions of assistants; so incessant and unexhausted are the efforts of the unfortunate patient to escape. After completely tiring those who are endeavouring to confine him, he is just as well prepared for a sudden and unexpected struggle as at first; and it generally happens, that he actually obtains his liberty in repeated instances, to be again returned to his bed. One circumstance may be mentioned, which rather borders on the ludicrous, but which is really of frequent occurrence: he is sometimes apt to spit in the face of the attendant, while gravely looking at him.

Various mechanical contrivances have been made use of, for the purpose of confining such individuals in bed; particularly when labouring under fractures of the lower extremities. Of these the best, unless forbid by extreme heat of the weather, is the "bed-jacket;" an apparatus resembling a strait-jacket, but made to fasten to the bed-stead. When the use of this is thought intolerable from the heat, recourse may be had to straps. I have used an apparatus which is fastened to a main strap, running down the middle of the bed; but it allows too much motion for a fracture; and as the interval of time required for enforcing sleep is not very long, I have generally obtained the best success from the jacket, even in the hottest weather.

It is remarkable, notwithstanding what we have just said, that the injury sustained by fractures, from the incessant agitation in them produced by this peculiar delirium, is far less than might be anticipated: there is certainly less susceptibility of irritation in them; and I have sometimes thought that this was owing to the debility of the circulation produced by the exhaustion arising from the disease.

Having thus completed a survey of delirium tremens, we may conclude by a recapitulation, after the example of many excellent writers, of the leading points which we have endeavoured to establish, in the form of aphorisms.

1. The disease is a delirium, and not a mania; and this distinction should be attended to, both for medical and legal reasons.

2. It consists in a heightened activity of the sensorium: and this appears to arise from the generation, in that organ, of an unusual vital power, which is not, as in common, exhausted by the narcotic

ions ally used. This is not considered as an hypothesis, ssion of a fact existing in nature.

irium may be combined with other diseases and ated in many different parts of the body.

n violent, it obscures and renders imperceptible most of p of the co-existing disease.

is doubtless necessarily accompanied, as all vital excite- are, with an unusual amount of the circulation of the blood organ affected; and is, from this cause, sensibly influenced s, blisters and emetics. It is not so far checked by the use tics as to render these advisable as a leading means of cure.

s not sufficiently under the control of the general circulation to red by venesection, or to be sensibly relieved by it without an exhaustion as is highly dangerous to life.

t is entirely and absolutely under the control of opium; gh the fevers and other diseases which are liable to accom- it may be by no means so.

7. It admits of very large doses of opium, which are not productive, either at the time or subsequently, of any injurious consequences, provided they are not repeated after a tendency to sleep is evinced.

8. The patient must *sleep or die*. There is no alternative. Yet the physician should personally watch the effect of very large doses of opium.

9. There is no distinction of stages which need occasion a moment's delay in resorting to opium.

10. Purgatives are of no use in this delirium; but it is necessary to prevent costiveness subsequently to the administration of opium. Purgatives may be necessary for diseases which exist at the same time; but when this is the case, they are, in general, most advantageously postponed till after sleep has been obtained.

11. Gentle stimulants are frequently useful during the convalescence; but these should not resemble ardent spirits; and an excellent and sufficient one is capsicum. Nor should any ardent spirits, unless indicated by peculiar circumstances, be given during the paroxysm.

Cases of Mania a Potu, treated in the Pennsylvania State Prison, in 1819; in which a comparison is made between the Emetic Treatment and that by Stimulants and Anodynes. By HENRY NEILL, M. D.

1. Michael Leidy, about forty years of age, was committed to prison on the 30th of April. Was much intoxicated, and had been so almost constantly for the last six months. The next day had a convulsion fit. The keepers then gave him a gill of spirits. He that day discovered some symptoms of mania, and in the night became entirely deranged.

May 4th, came under my care,—had the usual symptoms of mania a potu, with a feeble pulse. Directed powders each containing a scruple of ipecacuanha and two grains of tartar emetic, with directions to give one every two hours until they operated freely; which they did after a few doses.

5th. Found he had not slept any. Repeated the emetic.

6th. Considerably worse,—had raved violently during the night. The emetic had operated freely. I now concluded to change the remedy; and directed the camphorated julep, to take a tablespoonful every hour, and four grains of opium every two hours; with a pint of spirits, to be drunk as soon as he could conveniently. In about four hours after the administration of these remedies, he went to sleep. Continued asleep for two hours; then awoke somewhat composed; was more tractable and took some nourishment.

At 3 o'clock the next morning he died; having, however, continued in his senses during the interval.

2. William Gibson, aged thirty-five years, was committed, on the 16th of August, 1819, as a vagrant. On the 18th he came under my care with the usual symptoms of mania a potu. His pulse was nearly natural, and he was not greatly debilitated. I directed an emetic, in the formula which was used in the preceding case. It operated freely in the course of the day. Continued sleepless and delirious during the night.

19th. This morning about 9 o'clock, he fell asleep and awoke much better; directed cold snake root tea, and nourishment.

20th. Found him quite well.

3. Maria Evans, was committed as a vagrant on the 21st of Aug.

1819. On the 24th, she came under my care with the usual symptoms of mania a potu, with a low and feeble pulse. Directed an emetic. It operated very well. The nurse observed that she had vomited a quart of bile.

25th. Had raved violently all night; she appeared just the same this morning. Directed the following: R. gum. camph. ʒij. pulv. gum. opii. ℈i. sp. lav. comp. ℥ss. mucilag. gum. arab. ℥iv. m. F. mist. Take a table spoonful every two hours.

26th. Found her asleep—the nurse informed me that, after taking four doses, she went to sleep.

27th. Was quite relieved, and discharged from prison.

4. Michael Calahan, aged sixty years, came under my care in the prison with mania a potu, October 18th, 1819. His strength was tolerably good. He took an emetic; after the operation of which, he went to sleep and awoke quite well; and was discharged from prison in a few days.

5. Dec. 24th, 1819. Michael Calahan was again committed to prison and came under my care with mania a potu;—the symptoms about the same as they were in October. He took an emetic; which operated freely, but afforded no relief.

25th. Directed the camphorated mixture. He obtained sleep and became more composed. The mania did not return, but he died on the 27th, apparently of debility.

6. John Torr, aged forty-five years, was admitted on the 23rd of Feb. 1820, with mania a potu. Directed an emetic. It operated smartly as a cathartic.

24th. Had slept, and was so much relieved that I directed cold snake root tea only, with nourishment.

25th. Symptoms of mania returned; and the following prescription was directed. R. gum. camph. ʒij. g. opii. ℈i. mucilag. ℥iv. m. To take a table spoonful every two hours, until sleep was obtained. Besides this, one pint of spirits to be taken in the twenty-four hours.

26th. He had slept some, and though better, was not well. Continued the treatment; the opium to be administered every night until sleep was obtained, and a pint of spirits allowed.

27th. Still improving—three or four doses of the medicine always procured sleep. Continued prescription and spirits.

March 1st. Had recovered his reason, and was discharged, without making any alteration in the treatment.

7. Frederick Getts, aged forty years, was admitted March 31st, 1820. He had very great tremor of the whole system, but was not much debilitated; complained of pain in his back—senses at this time perfect, though I was apprehensive of mania, as he had been a hard drinker. Directed tr. guaiac. vol. ℥iij. elix. pareg. ℥i. m. To take a table spoonful three times a day.

April 1st. The usual symptoms of mania a potu had taken place. Directed two grains of gum opii every two hours.

2nd. No better—continue the opium.

3rd. Had vomited considerably, and was asleep. Opium omitted.

4th. Appeared quite rational, having slept considerably. Directed sulph. sodæ ℥i. to remove costiveness.

5th. Mania had returned; directed an emetic:—it operated freely.

6th. No better: mania more violent. Directed camphorated mixture as in the above case, with one pint of spirits per day.

7th. About 9 o'clock, A. M., had just got to sleep as I arrived.

8th. Had slept well during the night, and appeared perfectly recovered.

9th and 10th. Continued well and was discharged.

8. Robert Blight, aged thirty-six years, was admitted into the hospital, on the 21st of Sept. 1820, with mania a potu, exhibiting the usual symptoms. Directed two grains of opium every two hours, and a pint of spirits per day. In twenty-four hours he went to sleep, awoke rational, and continued well.

9. James Graham, aged thirty-eight, was admitted, on the 13th of Feb. 1821, with mania a potu. Two grains of opium were directed to be given every two hours, till sleep was procured; and a pint of spirits to be allowed per day. He was much better the next day. Treatment continued; the opium to be given at night. In three or four days, well and discharged.

10. John Smith, aged thirty-five, was admitted, on the —— of July, 1821, with mania a potu. Directed two grains of opium every two hours; and a pint of spirits to be given in the twenty-four hours. In about twenty-four hours after the treatment was commenced, he got to sleep. Continued this treatment as in the last case, for three or four days; in which time he perfectly recovered.

11. John Haines, aged twenty-nine years, was committed as a vagrant, had been a hard drinker. Came under my care, on the

of 1823, with remittent fever, attended with ordinary
n emetic was directed on the day of admission in

ted a solution of nitrate of potash and antimony.
icine continued.
ere being an intermission of fever, bark was directed.
Found him quite delirious, with the characteristic symp-
of mania a potu, though free from fever. Directed the
horated mixture, and one bottle of porter per day.
1. He was sleeping, and had come to his senses. Continued
ent.
4th. Omitted medicine. Continued porter.
25th. Discharged well.

inferred from the foregoing cases;
t emetics alone will not generally cure mania a potu.
it they are very serviceable in preparing the stomach
e of opium; and the occasional use of them is an im-
ment in practice.

3rd. That an emetic will sometimes cure the disease without any other remedy.

And 4th. I am of opinion that opium is in mania a potu, what bark is in intermittent fevers.

Case of Delirium Tremens, exemplifying its power of obscuring the symptoms of an inflammatory disease, and exhibiting violence with only two days' duration.

A tailor, Irish by birth, aged about twenty-five years, of a thin habit, and somewhat debilitated, owing, as it afterwards appeared, to habits of continued intemperance, applied to me, Feb. 5, 1826, towards the termination of the severe epidemic, which affected Philadelphia, at the commencement of that year, under the name of Influenza.

I found him labouring under symptoms of a smart pleurisy of both sides, complicated with distinct characters of bronchitis, and with that class of appearances which are referred by the modern school to gastro-enteritis. This combination, which might probably have been included under the terms bilious pleurisy, catarrhal fever, or pleuritic fever, I met with bleeding, purging, blisters, and pectoral demulcents, aided by small portions of tincture of opium, and antimoniated wine. To these the malady rapidly yielded; and there was nothing peculiar in this stage of the case, but a very sudden shifting of the majority of pain from the right side to the left; in such a manner, that the patient applied to the latter a blister which I had directed to be procured for the original seat of the distress.

On the night between the 6th and 7th, as well as previously, his sleep was interrupted; but on that of the 7th and 8th, he was affected with distinct delirium, and was troubled with apparitions; his hands too manifesting tremor. I had previously inquired with care relative to his ordinary habits; but I now learned that his wife had concealed the truth from me, and that he had long indulged in excessive potations. Finding a delirium tremens distinctly formed, I directed the following mixture. R. Tinct. opii. acetos. ʒi. liq. Hoffmanni anodyn. ℥ss. aq. fluv. q. s. facere, ℥iv. tr. lavend. comp. ʒi m. sig. To take a table spoonful every hour, till he sleeps.

Learning, on the morning of the 9th, that he had had no sleep, and that his delirium progressively increased, I considered the latter as the most serious of his maladies, and as one threatening death, at no very remote period, unless prevented by a speedy cure. It was also viewed in the light of a circumstance postponing, by the embarrassment and anxiety it produced, the treatment necessary for his pulmonary complaints. Under these views, and as the anodyne mixture, of which he had taken nearly all, had failed in producing sleep, I directed a scruple of powdered opium to be made up in four doses, and one administered every hour. When the whole of this was consumed, no sleep appearing, and having visited with sufficient frequency and ascertained that there existed no visible symptoms referrible to the opium, I had another scruple divided into two doses, both of which he took, at the interval of an hour, a period merely sufficient to ascertain the fact, that the preceding dose was insufficient. For the administration of this I was rewarded with the pleasure of finding him perfectly rational the next morning, he having slept for eight or nine hours. He had thus taken forty grains of opium, within little more than five hours; besides nearly a drachm of black drop, and half an ounce of Hoffmann's anodyne, administered during the previous day and night.

On the 10th, he took a cathartic, his bowels having been constipated; nd, with the addition, for one or two nights, of a moderate opiate, resumed the treatment addressed to his pulmonary complaint; the distinctly formed delirium having only existed during two days.

The most remarkable feature of this case yet remains to be recorded. From the first accounts given to me of his delirium, on the morning of the 8th, the pain in his side, and soreness of the bronchial region, appeared to have entirely ceased; and his cough was greatly moderated. This continued for one or two days after the delirium had terminated; and I could not help somewhat indulging the hope, that his disease, which had been but partly controlled by remedies, was now near its close: at the end of the period, however, which I have indicated, every character of the original maladies returned; they long resisted an energetic treatment, and gradually declined till near the end of March, when the unwillingness of the patient to submit to medical restraint, induced me to leave him. He was, at this time, still affected with a chronic pain in his side, accompanied by cough; and was by no means strong, and fit to be discharged. I have lately learned that he was still intemperate, and in a bad state of health.

Case of Delirium Tremens, exhibiting a duration of thirteen days, and a gradual decline. From the practice of Dr. Otto.

E. R., aged about forty years, was admitted into the Pennsylvania hospital, January 18th, 1827. Had not slept for seven nights. His symptoms were such, as, in the mind of the physician in attendance, distinctly characterized delirium tremens or mania a potu; and they occurred, in the usual manner, after the interruption of a course of drinking.

Night of the 18th. Seemed remarkably still, and manifested no symptoms of any violence. (This was subsequently discovered to have been owing to a strong impression on his mind that he was to be put to death.) Ordered tinct. opii gtt. L.

19th. No visible change. Had not slept, but seemed well. An anodyne, the quantity not recorded, was given at night.

20th. R. carb. ammon. ʒi. gum asaf. ʒij. tinct. opii ʒiij. aq. fluv. ℥vj. m. ft. mist. capt. ℥ss. quaque 3tia hora.

Evening. More restless. Capt. mist. quaque hora. Sumat opii gr. vi. hora somni, in pil.

21st. Had slept very little. Still very delirious. Contin. medicament. quaque hora.

Night. A little quieter. Capt. opii gr. iv. hora somni.

22nd. Had had some sleep. Capt. medic. quaque 2nda hora.

Night. Capt. opii gr. iv. hora somni.

23rd. Had some sleep. Had had visions during the night, but they were now gone. Tranquil. Contin. med. quaque 3tia hora.

Night. Capt. opii gr. iv. hora nona, et gr. iv. hora prima matutina.

24th. Had slept well, and was comfortable. Capt. mist. quaque 3tia hora. Capt. sulph. magnes. ℥i. Omittatur opium hora somni.

25th. Salts had operated twice in the night. Apparently well. Had no visions; and slept when not disturbed by the salts.

He then continued well, and rapidly regained strength.

In this narrative many visits are omitted; and the state of the bowels, during the early part of the disease, is not recorded: they were confined during the last day or two. The writer is well aware of the incomplete character of this statement, but only adduces the case as an example of the nature, and duration of its progress.

Case of Delirium Tremens and Acute Abdominal Inflammation. Death attributed to the latter.

D———, a printer, aged about twenty-nine years, American born, had been for several years in habits of intemperance. I had attended him in November, 1824, through an attack of delirium tremens of the most distinct character; and he recovered rapidly, in the usual way, after a sleep forced by free doses of opium. He had long made complaints which I referred to a chronic hepatitis; and he presented a sallow and emaciated appearance.

When called to him, March 25th, 1827, I found him complaining of a violent fixed pain, below the right edge of the liver; accompanied with some febrile symptoms and a foul tongue, but with much weakness. This I considered a local enteritis; and it was treated with bleeding, cupping, blistering, and calomel. On the 26th, his symptoms were milder; but it was reported that he had been del ious during the night, and at different times during the day, that affection returned. He saw black dogs, cats, and rats, coming through a hole in the wall, which had no real existence; as well as numerous human visiters. He did not seem at all alarmed at these preternatural exhibitions, but described m and pointed to them with the greatest composure.

e was now treated with opium; the other practice being laid e. The quantity of opium I have not recorded, but it was e moderate than the last, and, I presume, did not exceed 16 0 grains.

'he same state of things continued during the night, and till the afternoon of the following day; when he fell asleep. He did not, however, sleep more than about three hours, before he ceased to exist.

During the whole of this latter stage, until sleep began, he continued to complain of his side, though less than on the previous day; and his delirium gradually and progressively increased. His pulse regularly subsided; but did not, however, disappear, till he was in articulo mortis.

I much regret that my notes of this interesting case are very imperfect: and as the facts are strong in my memory, I have ventured upon stating them, as they are valuable, and I have no better records of the kind. I have also to lament that I was prevented from examining the corpse.

Case of Mania a Potu. By W. C. Brewster, M. D.

Margaret Brown, thirty-seven years of age, and possessing a tolerably vigorous constitution, had been intemperate for six or eight months, and for the last five or six weeks, had been in the habit of taking from a pint to a pint and a half of whiskey daily. Having received a severe incision on her hand, she was obliged to abstain from her accustomed potations. On Saturday the 21st of April, I observed that peculiar tremulousness of the limbs which is almost a certain precursor of mania a potu. On Sunday morning the 22d, she was attacked with convulsions. When I arrived at 11 o'clock A. M., seeing at once the state of things, I determined upon trying the effects of the emetic practice. Eight grains of tartar emetic were accordingly dissolved in three table spoonfuls of water, of which two tea spoonfuls were given immediately, and one directed to be given every ten minutes thereafter. This was continued until the whole quantity was taken, which not producing the effect desired, a second portion was dissolved and administered in the same way, though at rather shorter intervals. By the time the last dose was taken, slight emesis was produced, with a cessation of the epileptic paroxysms. Ipecacuanha was now ordered to the amount of ℈i. in conjunction with grs. ij. of tartar emetic, the effect of which was two more vomitings. The whole quantity discharged did not exceed a pint and a half of dark, glairy matter. At 4 o'clock P. M., diarrhœa took place, with violent spasms of the stomach and bowels, producing contortions, writhing, cold extremities, imperceptible pulse, &c. and the patient died at 8 o'clock, in extreme pain, notwithstanding the administration of two tea spoonfuls of laudanum.

Letter from Dr. D. F. Condie, *to the writer of the preceding Essay, on* Dr. Kuhn's *practice in Delirium Tremens.*

My Dear Sir,—I have mentioned to you in conversation, that the opium practice in delirium tremens was originally introduced into this city, by the late Dr. Adam Kuhn. This fact I learned many years since from Dr. Currie. It is certain that the administration of "solid opium at short intervals, until the patient sleep," is strongly insisted upon, as the only effectual treatment of the mania of drunkards, in a set of MS. notes, purporting to be "select notes from lectures on the M. M. by Dr. Adam Kuhn," in the hand writing, and formerly in the possession of Dr. William Currie, of this city. The latter gentleman has repeatedly stated to me, that this practice, which he was taught by Dr. K., was invariably pursued by him from his first entrance upon regular practice in 1783, and was seldom ineffectual in putting an end very speedily to the disease. He did not, however, confine himself entirely to opium. He in general commenced by a bleeding from the arm, or cups to the head, the application of cold to the scalp, sinapisms to the nape of the neck and extremities, and the exhibition of opium, generally in grain doses, every half hour or hour, until sleep was induced. On awaking, the patient was directed to drink, daily, for several weeks, or even months, of strong ginger tea, or sound wine or porter sangree; abstaining entirely from every species of distilled spirits. I have had an opportunity of seeing a good deal of the doctor's practice in the disease under consideration, and have generally found, that by it a profound sleep was induced within the first twenty-four hours; from which the patient awoke, perfectly free from delirium. How far the venesection, cold applications, and sinapisms, may have concurred with the opium in producing so speedy a termination of the morbid symptoms, I am not prepared positively to determine: but I believe that in many cases, cups to the head, cold to the scalp, and stimulating applications upon the extremities, and especially the two first, will be found very valuable adjuvants in the treatment of many cases of this species of delirium. The drinks administered by Dr. C. subsequently to the removal of the disease, were, I suspect, rather with the view to wean the patient, if possible, from his habits of intemperance, than as remedial agents.

In the cases of delirium tremens which have occurred in my own practice, very many commenced with a kind of fit, nearly resembling that of epilepsy—in all, the tongue was moist, and coated with a white or yellowish slime; the bowels were in general costive. My mode of treating the disease has always been by the administration of opium: occasionally I have employed cups and blisters to the scalp, &c. In some instances, I have been obliged to carry the dose of opium to a great extent. In consultation with one of our most respectable practitioners, a case occurred to me (February, 1826) in which ten grains of opium were administered every two hours, until 120 grains were taken; sleep, however, not ensuing, nor indeed any very striking effects, the opium was now suspended, and two grains of ipecacuanha were given every half hour. This produced very considerable nausea, under the effects of which the patient was kept for about six hours; when two grains of opium being administered, a sound sleep almost immediately followed. When the patient awoke, he was perfectly free from the delirium and incessant agitation under which he had been labouring for near two weeks previously, and rapidly recovered his usual degree of health.

Yours, very sincerely, D. Francis Condie.

July 2, 1827.

ARTICLE II.—*Remarks on Phlegmasia Dolens.* By R. M. HUSTON, M. D.

THE disease which constitutes the subject of the following remarks, has generally been denominated *Phlegmasia Dolens.*

Numerous other appellations have, however, been assigned to it by various writers on the subject, grounded either on the supposed nature of the complaint, the causes by which it is produced, or the parts principally affected.

Its various names, therefore, give some idea of the variety of opinions which have been entertained with respect to its character; and for this reason I here present its synonymes.

Ischias a Sparganosis. SAUVAGES.
Depôt Laiteux. PUZOS.
Lait Repandu.
Ecchymoma Lymphatica. MOTHERBY and PARR.
Phlegmasia Lactea.
Œdema Lactium.
Phlegmasia Alba Dolens Puerperarum. WHITE
Anasarca Serosa. CULLEN.
Bucnemia Sparganosis, or
Sparganosis Puerperarum. GOOD.
Cruritis. HOSACK.

But without stopping to inquire into the propriety of these different synonymes, or the greater perspicuity of either of them, I shall pass at once to the more important consideration of the disease itself; intending to confine my remarks principally to it as observed in females, during the puerperal state.

This singular complaint ordinarily commences from the 10th to the 15th day after delivery; rarely before the completion of the first week, and not less seldom after the conclusion of the fourth.

"It attacks women of all ranks and of all habits; the healthy and the diseased; the lean and the corpulent; the sedentary and the active; the young and the middle aged." "It also occurs at all seasons and in all situations; and Dr. GOOD says it has never been known to appear in any other part of the body than the lower extremities." page 318. vol. ii. In this he is probably mistaken, Few of its occurrence in the arms are related by highly thors; but the instances are extremely rare. "In r fourteen days after delivery, the patient com- the groin of one side, accompanied with the gene- ectic symptoms. The part affected soon becomes tended, the swelling extending to the labium pudendi ne side, and down the inside of the thigh, to the leg and a day or two the limb is double its natural size, is hot, tely tender, and moved with great difficulty." "It has wever, the ordinary external signs of inflammation, but is *h, glabrous, pale and equable, except where the conglobate are situate, which are corded and knotty, as in the groin, the and the back and fleshy parts of the leg.*"* In almost every ce, more or less tenderness is experienced in the iliac region affected side, and especially in the course of the round liga- Indeed, Mr. TRYE regards this symptom as pathognomonic. GOOD declares it to be unconnected with any derangement r the secretions of milk, or the uterine discharge. But ough occasionally true, is far too comprehensive an ex- In all the cases that I h en, the secretion of milk inished, and in some wh ided, during the violence disease; and the late D as informed us that the al discharge is *always* vitia ch accords with what I have observed, although not conformable to the experience of others.

From the beginning, as already remarked, it is attended with the whole train of pyrectic symptoms; and this fever is often of the *hectic* character. Its duration is commonly about a fortnight or three weeks; but sometimes it continues for double that period, and is then productive of great emaciation.

The first signs of improvement are a diminution of pain and swelling in the inguinal glands, and those within POUPART's ligament, with a return of lactation, and an alteration of the lochial discharge, when these secretions have been affected. After this, the swelling and tenderness of the whole limb gradually subside, leaving a weakness behind, of various or indefinite continuance. It is not unusual, at this stage, for the other leg to become affected, but seldom to so great a degree as the first.

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* Good, page 318.

Happily for parturient women, this singular and very painful affection is of rare occurrence: and to this circumstance is probably to be attributed the obscurity in which its pathology is still enveloped. Many respectable physicians who are extensively engaged in practice, have never seen a case of it; and there are few who have beheld it under a sufficient variety of circumstances to enable them to speak positively of either its causes, seat, or treatment.*

Although there is every reason to presume that cases have occasionally happened from the earliest periods of society, yet, according to Dr. HULL, no distinct account of it is to be found in the writings of HIPPOCRATES, or of any of the ancient fathers in medicine, anterior to the time of RODERIC à CASTRO. This is attributable partly to its analogy to rheumatism, with which it was probably confounded, and perhaps still more to the circumstance of accouchements, with the care of puerperal women generally, being confided to ignorant old women, who were alike incapable of making nice distinctions, or of recording accurately what they saw.

Since that period, several professed treatises upon it have been given to the world, and a great number of ephemeral communications, in the form of cases, through the different medical periodicals:—And, as few writers incline simply "*to communicate what they have tried*, and leave the rest to others for farther inquiry," we are consequently furnished with several theories on the subject; some of which we will now briefly examine.

By the older writers who have particularly noticed this complaint, as à CASTRO, WISEMAN, MESNARD, and others, it was regarded as a morbid swelling of the affected limb, "from a suppression or diminution of the uterine or lochial discharge," or "a reflux of the lochia upon the part."

This position was evidently assumed upon a very limited acquaintance with the malady, as well attested cases are now on record in which it has happened in pregnant females, and also in men, in whom there could be neither "suppression, diminution, nor any other derangement of uterine action."

The next theory on the subject is derived from the French school; attributed by some to Puzos, and by others claimed for Levret, and is grounded on the supposition that the disease depended upon the actual presence of milk, deposited in the substance of the limb, and hence was denominated *depôt de lait.*

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* Of 1897 women who were delivered at the Westminster General Dispensary, five only were attacked by it; and of 8000 cases at Manchester Lying-in Hospital, only four had phlegmasia dolens.

Dr. Mason Good traces this notion to Dioscorides. Without venturing either to deny or affirm his accuracy in this, we may safely say, that it was not fully and generally proclaimed until the year 1758 or 9, and then by the celebrated French authors just cited; by whom it was carried so far as to attribute nearly every swelling of the abdomen, arms, legs, &c. which occur at a particular period, to a "depôt de lait," in the cellular membrane of the affected limb, or between the layers of the peritoneum.

In addition to the authors already named, we find Astruc, Doublet, and Mauriceau among its supporters. It is, however, but justice to the present distinguished members of the profession among the French nation to acknowledge, that although this title for the disease is still retained, the hypothesis upon which it was grounded, has been very generally abandoned;—so generally indeed, not only in France but in every other country, as to require no further notice.

The next popular theory was suggested by Charles White, Esq., of Manchester, England. The first edition of his work was published at Warrington in 1784, and a second at London in 1792.

The opinions of Mr. White as delivered in his own words are as follow:—"This disorder is owing to the child's head pressing the vessel or vessels which arise from one of the lower extremities, against the brim of the pelvis, during a labour pain, so as to stop the progress of the lymph; that the number of valves will effectually prevent it from regurgitating, and if the head continues any time in that situation, while the lymph is driven on through the valves by the peristaltic contraction of the coats of its vessels, by the great exertion of the muscles, and the strong vibrations of the inguinal artery, though its coats should be allowed to be stronger than those of the blood-vessels, it must at last burst and shed its contents. When the orifice made in the lymphatic is healed, and the diameter of the tube is contracted, or totally closed by the cicatrix, the lymph is retained in the lymphatic vessels and glands of the limb, and labia pudendi, and distends them to such a degree and so suddenly, as to occasion great pain and swelling, which always begin in the part next to that in which the obstruction is formed, and when the obstruction is in part or wholly relieved, or the lymph has found a fresh passage, the part next to it is consequently relieved."—*London Edition.*

To this hypothetical explanation of Mr. White, great and insurmountable objections arise.

1st. Agreeably to this notion, we should have the disease almost constantly occurring after severe and long continued labours, and never in those which are easily and expeditiously accomplished; neither of which is true. It happens, according to my limited experience, as well as the testimony of nearly every author who has treated on the subject, as frequently after easy as more difficult parturitions.

2nd. If a vessel of the size supposed by Mr. White were ruptured, such a degree of effusion and consequent tumefaction would undoubtedly occur in the part, as to render its existence evident at the time; which is not found to be the case.

3rd. There is no reason whatever for supposing a rupture of a lymphatic to take place, without a like rupture and laceration of other parts within which those vessels are imbedded, and whereby they are protected. As a hollow and flexible tube, the sides of a vessel of the kind would necessarily be approximated by the pressure to which it would be exposed, and thus occupy a space not sufficiently prominent to be strongly acted upon by the passing head; and the lymphatics are known to anatomists to be of a texture far too strong to be torn by slight causes.

4th. This explanation does not accord with a circumstance of frequent occurrence in the progress of the disease, viz: The existence of the swelling first in one leg, and subsequently in the other.

The lymphatics on both sides of the pelvis being equally exposed, we may presume that when a rupture of vessels on both sides happens, it would be at no great distance of time; consequently, the swelling in both legs would appear simultaneously, or nearly so; and not first in the leg of one side, and after its subsidence, in the other.

If, however, the rupture be supposed to take place on one side only, then we have no explanation of the subsequent swelling of the opposite limb.

Finally, if it be admitted that the proximate cause of this complaint consists in an obstruction of the lymph, in its progress through one or more large vessels, towards the thoracic duct, whereby swelling and pain are produced throughout their ultimate ramifications, this may be better explained by supposing inflammation to arise in the trunk of a lymphatic and extend to one or more glands, or primarily in the glands themselves. In either case the stagnation conjectured by Mr. WHITE to occur, would take place, even more effectually than by a cicatrix blocking up the calibre of one or two vessels; and this condition can be fully and satisfactorily accounted for, on ordinary and established principles.

Shortly after the appearance of the 2nd edition of WHITE's work, the medical world were favoured with an able review of it, with additional remarks on the same subject, by his learned and enlightened countryman, CHARLES BRANDON TRYE, Esq., which was published at London in 1792.

In that communication, Mr. TRYE, after most satisfactorily overturning the position of WHITE, as regards a rupture of vessels, declares his belief in "lymphatic inflammation," involving not only the vessels of the part affected, but also the glands with which they communicate. As the pathology of the disease contained in the essay of this accomplished scholar, is substantially the same as that which will be stated in the conclusion of these remarks, a further notice of the work is deemed unnecessary at present.

In the subsequent essay on the same subject by the celebrated Dr. FERRIAR, we can discover nothing but a confirmation of the views of this able writer.

The doctrine of lymphatic inflammation appears likewise to have been espoused by Drs. DENMAN and LATHAM, although not fully explained or forcibly inculcated by either of them. More recent than either of the foregoing, is the treatise of Dr. HULL, of Manchester: a work replete with learning and abstruse inquiry; more remarkable, however, in my humble opinion, for *these* properties, united to a cold contempt for all the opinions of his predecessors, than the clearness of his facts, or the soundness of his deductions. Nevertheless, as the hypothesis (for we can accord to it no higher claim) of this well known writer, has been extensively promulgated, and very generally embraced, I must beg the reader's indulgence while briefly examining it, together with the facts upon which it is based.

Dr. Hull thinks "the *proximate cause* consists in an inflammatory affection, producing *suddenly* a considerable effusion of *serum* and *coagulating lymph* from the exhalents into the cellular membrane of the limb." The seat of this inflammation he believes "to be in the muscles, cellular membrane, and inferior surface of the cutis. In some cases, perhaps, the inflammation may be communicated from these parts to the large blood-vessels, nerves, and the lymphatic vessels and glands imbedded in them: For it may be easily conceived, says the doctor, that these parts, though not very susceptible of primary and original inflammation, cannot always escape a participation of the disease; since they derive their arteries and veins from the same sources; and since, when the effused matter is purulent, or unusually acrimonious, they may be considerably irritated by being immersed in it. The lymphatic system is peculiarly liable to suffer from acrimonious fluids, because these, in consequence of their absorbing functions, are applied freely to the irritable internal membrane of the lymphatic."

Dr. Hull does not pretend to support this opinion of the proximate cause of the disease by an appeal to any direct facts or observations; but rests the matter almost wholly on assumptions.

The pyrexia by which it is preceded and accompanied, he thinks, manifests the existence of general inflammatory action; and that the pain, heat and swelling of the affected parts, prove the presence of topical inflammation. But why he supposes this inflammation to be seated "in the muscles, cellular membrane, and inferior surface of the skin," we are left to imagine; at least I have observed in his essay neither facts nor arguments to prove it.

Although at first sight he seems to consider the affection as primarily situated "in the muscles, cellular membrane, and inferior surface of the skin; and secondarily in the blood-vessels, nerves, and lymphatic vessels and glands," it is only to be understood as indicating the order of succession *in the limb;* for in another part of his essay the doctor has laboured to prove a connection between phlegmasia dolens and peritonitis puerperalis; and in fact the dependence of the former upon the latter disease. Now if this latter proposition be true, the question will naturally arise, why the peritoneal affection does not extend to those muscles with which it is in contact, and the contiguous skin and cellular membrane, rather than seek an abode in like textures in the more distant leg and thigh. And yet who ever saw peritonitis affecting those parts of the abdomen?

It is a rule in pathology, now sufficiently ascertained by observation, that inflammation is modified by the particular tissues or parts in which it happens to be seated; and its terminations are not less influenced by the same circumstance.

Thus, inflammation may attack a serous membrane in one part of the body, and be translated to a serous membrane in another and distant part; but it is not apt to be translated to a *different tissue* in a remote part. When, therefore, inflammation extends from one tissue to another, it is commonly to parts in immediate contact.

Can, therefore, any one at this day believe in the extension of inflammation from the peritoneal lining of the abdomen to "the muscles, cellular membrane, and cutis of the thigh and leg;" and that those parts shall become, not gradually and successively, but simultaneously, inflamed? And that again, all at once, or "suddenly," to use our author's own language, those parts, so differently constituted, and ordinarily obeying different laws, both in health and disease, shall, by a like unaccountable harmony, relieve themselves at the same moment by the abundant effusion of precisely the same matter? To admit this explanation would be to confess a unity of action between parts of dissimilar structure and use, not found in a state of health, nor ever, I apprehend, in that of disease.

Upon every view of the case, I can but reject the author's opinion of the existence of inflammation in those different tissues, as being not only unproved, but inconsistent with reason and common observation. A remark now occurs in regard to the extension of the inflammatory action to the lymphatics. When, says Dr. HULL, "the effused matter is purulent, or unusually acrimonious, they (the lymphatics) may be considerably irritated by being immersed in it." Here then he is forced to admit the occasional existence of inflammation in the lymphatics; a position against which his mightiest arguments are directed: but he also confesses that the effused matter does not always consist of serum and coagulable lymph, but may be "purulent or acrimonious." Thus he recognizes four different kinds of effused matter, without showing the distinctive or modifying circumstances by which those different cases are attended. The next position of Dr. Hull, is, that this supposed inflammation relieves itself by effusion; an opinion which he has advanced in a like unsatisfactory manner. Having, however, advanced the opinion, he offers the following arguments to prove, not the *existence* of the effused matter, but its *nature!* It would have been far more satisfactory if he had first demonstrated the actual presence of the effusion, and *then* its properties; the only course capable of eliciting truth, or at all consistent with the rules of true philosophy. That the effused fluid differs in consistence, or the proportion of its parts, he thinks is proved by punctures, and incisions, made in the affected limb; "for, wherever these have been made, it has been found impossible to draw off the whole of the effused matter, and reduce the limb to its natural size, as may generally be done in cases of anasarca."

Now if this remark proves any thing at all, it is that the swelling and enlargement of the limb is not a mere anasarcous affection: a fact which all the world admits; but it by no means proves that the enlargement is owing to the effusion of coagulable lymph; much less does it prove that it is not an inflammation or other derangement of the lymphatic system.

But that this enlargement is not owing to the effusion of coagulable lymph, is evident from common observation. Every one knows how much coagulable lymph is disposed to assume an organized existence, and how exceeding slowly it is removed, in cases where it is necessary for it to be destroyed; yet here we have a leg swelled to double its ordinary size, reduced to its accustomed dimensions, or nearly so, sometimes in forty-eight hours, and often in the course of three or four days. That system of vessels which often requires months for the removal of a single speck of coagulable lymph from the cornea, or a small patch in the pleura, must here remove fifteen or twenty pounds in the course of a few days! As far as I understand the doctor's opinion of the nature of this swelling, it is to the *effusion* that he attributes the enlargement of the limb, and not to the previous inflammation.

That the vessels of a part should suddenly take on an action capable of throwing out a mass of serum and coagulable lymph, equal to the whole bulk of the leg and thigh, and that too for the relief of a slight extent of inflammation, so slight as not to be susceptible of demonstration, is a position which requires no refutation.

If this were a case of inflammation, suddenly terminating by extensive effusion, and the enlargement of the limb owing to that effusion, then, with the sudden swelling and enlargement of the limb, we should have a termination of the sufferings of the patient: there should be no more pain and tenderness of the affected part, nor febrile disturbance of the general system; whereas, the distress of the patient, constitutional and local, is never greater than when the swelling is at its height; and the first abatement of the patient's suffering, is generally indicated by a subsidence of the swelling.

Dr. Hull has endeavoured, throughout his elaborate production, to prove that the lymphatic system has "neither part nor lot in this matter." This course, it seems, was essential to the overthrow of what had been written by Denman, White, Trye and Ferriar, and for the better admission of his own system. I shall therefore examine some of his *cases*, as it is chiefly in the histories of them that he has endeavoured to sustain this position, and see how far he is borne out by his own reports. And here the reader will doubtless be surprised to learn, that of twelve cases which he has reported, four only fell under his own observation; and of *these*, he witnessed the commencement and progress of *one* only: those four, however, being his principal pillars of support, and the only ones for the accuracy of which he is responsible, we shall examine briefly, touching only their most prominent and essential circumstances.

The first case was that of a lady of Manchester, whom Dr. H. attended from the 1st of April, until the 21st of June, a space of nearly three months, and treated with pretty active medicines for dropsy. At the last date, (June 21) she was delivered; and on the 27th of June, viz. three days subsequent to accouchement, she was attacked with puerperal fever, which, by medical treatment, soon passed off, and she was seized on the 6th of July, (fifteen days after delivery,) with what Dr. Hull has been pleased to call phlegmasia dolens; although it differed from the general history of that complaint in several material points.

For instance, both labia were exceedingly swelled, but only one leg and thigh. Now nearly every writer who has described this complaint, either before or subsequent to Dr. HULL, has laid it down as a characteristic of the affection, that the swelling is bounded by the middle line of the body. Again, a red blush was also discovered upon the affected leg, and this was seen several days after the attack; which is certainly an unusual symptom in this disease. From the commencement to the conclusion, *not a word is said of either the secretion of milk, or the lochial discharge!*

Taking into consideration the doctor's own account of this woman having laboured, first under anasarca gravidarum, then puerperal fever, and lastly, phlegmasia dolens, attended certainly with unusual circumstances, and in the history of which he has failed to inform us of some very material ones: considering its many complications, and the imperfection of its details, I think we are justified in rejecting it entirely, as having no bearing upon the subject.

The doctor does not fail, however, to tell us at almost every visit, that there were no marks of lymphatic inflammation: yet, on the 9th of July, he admitted there were lumps, or inequalities, *in the very places occupied by the conglobate glands;* but, as he fancied they were less round and circumscribed than glands *ought* to be, he therefore concludes them to have been lumps of coagulable lymph. And still further to enforce this point, on the 15th of July, he inquired of the *nurse*, and was told, that "*neither then, nor during any part of the course of the disease, had she perceived streaks, cords, or lumps, such as he described to her as taking place, when the lymphatic system is affected with inflammation, or enlargement.*"

Here, then, what PUZOS, DENMAN, WHITE, TRYE, LEVRET, and every body else, considered as conglobate glands, are converted, by the magical touch of Dr. HULL's fingers, into mere lumps of coagulable lymph, because forsooth they were not round enough for his fancy: and still further to establish the matter, we have the discriminating fingers of the lady's nurse put in requisition!

In the 2nd case, that of Mrs. Hulse, the attack commenced with "coldness, rigors, and other pyrexial symptoms," and with violent pain in the right side of the abdomen, which began a little above the crista of the ilium, and extended to the spine and to the umbilicus. The left side remained free from pain. "Two days after, she was seized with severe pain in the groin, and superior part of the right thigh, which descended to the leg and foot, and a tense, colourless, elastic, swelling of the whole limb supervened." On the 17th day from the commencement of the attack, Dr. H. visited her *for the first time*, and his account is as follows: "Both the lower extremities were considerably swelled, hot, tense, and exquisitely tender when touched; they were not discoloured, nor did they retain the impression of the finger in any part, except in a very slight degree. The pain was abated; but was still very troublesome on attempting to move her limbs. *There was not any perceptible inflammation, or enlargement of the lymphatic glands, or vessels.*"

Let me ask how it was possible for Dr. H. to discover whether the lymphatic glands and vessels were swelled or not, circumstanced as the case was when he first saw it? Fifteen days from the attack, the limbs swelled perhaps to double their ordinary size, the skin stretched over them like a *drum-head;* so tense that the finger could not leave an impression; buried in the cellular substance beneath the skin thus resisting, who could discover whether the lymphatic vessels and glands were or were not in a healthy condition? especially when the parts were so exquisitely tender that the practitioner scarcely dare touch them!

Of the 3rd case, Dr. HULL neither witnessed the commencement nor termination. The history presented to him was, that the right thigh and leg were swelled and painful during pregnancy, but went off soon after confinement. "Eleven days subsequent to accouchement, she was seized with rigors, head-ach, and other pyrexial symptoms; and on the afternoon of the same day, with pain in the right hip, which on the day following extended to her groin, thigh and leg, and was afterward succeeded by a tense, elastic, lucid, hot, tender, painful swelling of the whole limb."

Dr. HULL's attention commenced two days subsequent to the swelling, and continued six days.

"*During the time that I visited her,*" says the doctor, "*the swelling, tension and tenderness of the limb did not abate.*" "I examined the limb carefully different times, but did not perceive inflammation, or enlargement of the lymphatic vessels or glands."

To this case precisely the same objections apply as to the preceding. It was, I apprehend, impossible, in the "tender," "tense," "painful," and "swelled" condition of the parts which the doctor has acknowledged to have existed, for him to have made any correct examination at all, without putting the patient to a degree of pain much greater than we can suppose the humane feelings of Dr. Hull would suffer him wantonly to inflict.

In the fourth case, there was likewise pain in the flank, groin, inside of the thigh, swelling, &c., so like those already cited, that it is unnecessary to relate them more circumstantially.

Dr. Hull did not see this case until some days after the occurrence of the swelling, and urges precisely the same objection to lymphatic affection as in the preceding.

The remaining eight cases are reported by the friends of Dr. Hull, and all in so brief and uncircumstantial a manner as to place them beyond the reach of criticism.

It is worthy of remark, that in all the cases reported by our author, pain and uneasiness were experienced in the precise situation occupied by the inguinal glands, and those within Poupart's ligament; and that this pain, associated with rigors, head-ach and the whole train of pyrectic symptoms, in every instance *preceded* the pain and swelling of the leg and thigh: Yet, with this strong testimony before his eyes, he has disclaimed all belief in the affection of either the lymphatic vessels or their glands; at least as a primary disease.

We have noticed the essay of Dr. Hull thus circumstantially, not from any thing remarkably plausible or ingenious contained in it, but from the high character of its author, and the popularity thence imparted to every thing which has fallen from his pen, and to this production in particular.*

We pass over the suggestion of this disease being identical with rheumatism, from the paucity of the facts by which it is supported, and the conviction that a different conclusion must have been drawn by all who have attentively witnessed the two diseases.

In the 12th vol. of the London Medico-Chirurgical Transactions, there is a paper by Dr. Davies, in which he endeavours to make it appear that phlegmasia dolens is the result of an inflammation of one or more large veins, terminating in the formation of artificial membranes and other obstructions within their cavities, whereby the free return of blood from the extremity is prevented. As this suggestion is grounded on certain phenomena observed by Dr. D., in four cases dissected by himself and Mr. LAWRENCE, and hence professes to rest upon the best of all foundations, viz.—facts revealed by actual observation after death, it is both necessary and proper to bestow upon it the most respectful attention.

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* If it shall be thought that we have, in speaking of Dr. Hull's work, "spoken plain truths in too plain a manner," we reply that it has been by no means from a want of respect for its author, but for truth's sake, and in strict conformity with his own example.

In canvassing the opinions of Dr. DAVIES on this point, I beg to be understood as placing the fullest reliance on the accuracy and fidelity of his anatomical reports; and therefore as merely questioning their applicability to the subject under consideration; which I do for the following reasons:

1st. I believe that an attentive consideration of the cases reported by Dr. DAVIES, their symptoms and progress, prove them not to have been phlegmasia dolens at all—using the term in the sense applied to it by all the authors who have particularly described it before him; and if any of my readers should be startled at this assertion, I beg them to read the histories of them as given in the author's own paper, and then compare them with the description of the disease as contained in GOOD, WHITE, THOMAS, or any other author of established reputation, and I venture to assert that it will be found that they contain not one diagnostic mark of phlegmasia dolens.

2nd. Inflammation of veins is by no means a rare occurrence, but is often produced by punctures, as in phlebotomy, by ligatures, poisons, &c. Yet we never witness symptoms like phlegmasia dolens following or attending upon such condition, in the arms and other parts where such accidents generally happen. At least there has been no similarity in the cases which have fallen under my observation or that of my friends, nor in the reports of journalists, as far as I am acquainted with them.

3rd. The ordinary and immediate effects of *venous obstruction*, I take to be, if sudden and complete, a dark or livid appearance of all the parts below the obstructing cause; if gradual or in a less degree, a dropsical or œdematous condition to the same extent; and in both instances, a *diminished sensibility of the part so influenced*.

Now as the colour of the parts affected by phlegmasia dolens is not livid, but remarkably white; and as the swelling does not pit on pressure being made with the finger, like œdema, but on the contrary is firm and elastic; and as the sensibility of the part is not diminished, but mostly excited, I take the whole train of phenomena, as usually and constantly observed in venous obstruction, to be quite the reverse of those which characterize phlegmasia dolens. Hence it cannot be owing to venous obstruction.

That it is not *venous inflammation*, is rendered certain by a like survey of the symptoms peculiar to each.

In inflammation of the veins there is an intense redness, not only of the vessels affected, but of the whole subjacent parts, very often terminating in suppuration; there is always great constitutional suffering, and if extensive, and not promptly relieved, very often a fatal termination.

Indeed I can scarcely conceive it possible that inflammation could ever occur in the iliac and other large veins of the thigh and pelvis without a fatal termination—either from suppuration, and the matter travelling into the circulation; gangrene of the vessels; or the extension of the inflammation from the iliac veins to the vena cava, and thence to the heart; either of which must inevitably destroy the patient. And this result is actually verified by Dr. Davies' own cases.

We hence conclude, either that the cases of Dr. Davies were not genuine phlegmasia dolens, or that they were connected with very unusual and complicating circumstances; and that in either case, we cannot receive the appearances revealed by dissection as proper data for the foundation of a rational theory of the disease, as we ordinarily meet with it.

It is but a bad compliment to the skill of Dr. Davies that he should have dissected *four* cases of a disease of very rare occurrence, and which all writers upon the subject admit seldom or never terminates fatally. It is far more reasonable to presume that they were cases of phlebitis, resembling phlegmasia dolens, but specifically different in their pathological circumstances as *well as their termination.*

In the "Dictionnaire de Médecine, tome seizième," there is an interesting article on inflammation of the veins by Breschet, under the head of "*Phlebite.*"

In that article, SASSE, MECKEL, WILSON, CLARKE, CHAUSSIER, and RIBES, are all said to have found *inflammations, terminating in suppuration, obliteration, &c. of the uterine and iliac veins, and even the vena cava, subsequent to parturition;* yet no mention whatever is made of either of those cases having been attended with *phlegmasia dolens*—an omission not to be presumed when we consider the source from whence the reports come.*

Some cases are likewise reported by Professor VELPEAU, of France, going to establish the same position; although the reporter does not appear to attribute the disease exclusively to that source, but partly to a diseased condition of the sacro-iliac symphysis, and of the peritoneum; all of which seem to have been present in the cases examined. The results are, however, considered by the advocates of venous inflammation, as lending support to Dr. DAVIES' views.†

Happily the learned author has given us the symptoms evident during the lives of his patients, as well as the facts revealed by dissection.

After the most attentive examination of these cases, I confess myself entirely unable to discover in *either of them*, a single characteristic trait of phlegmasia dolens. They no more answer to the description of this disease given by WHITE, TRYE, FERRIAR, HULL, and nearly every other writeron the subject, than to rheumatism, gout, anasarca, or erysipelas.

It is not a little astonishing, that such men as M. VELPEAU and Dr. DAVIES, when writing professedly to communicate *new views* on an important practical subject, should commit themselves so egregiously—especially where the diagnostic signs are so firmly and universally established! By this plan of attaching *the name* to a train of phenomena altogether different from those pointed out by our predecessors, there would be no difficulty in making out its pathology to consist in inflammation either of the veins, the pleura, peritoneum, arachnoid membrane, or of the great toe! It is this want of precision, this neglect of calling things by their right names, that causes so much confusion and discrepancy in most of our controversial essays.

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* The fact of parturient women being so liable to inflammation of those large vessels, proved by the observation of such men, and their frequent fatal termination, establishes at once the character of Dr. Davies' cases.

† Recherches et Observations sur la *phlegmasia alba dolens*. Par M. Velpeau, Chef de Clinique à la Faculté de Médecine de Paris. Archives, Octobre, 1824.

To prove that I have not assumed too much in considering the diagnostics of phlegmasia dolens to be completely established, I will here recite some of the observations of Mr. White, published more than forty years ago; in which it is clearly contradistinguished from those other affections, which it most nearly resembles.

"It appears very evident," says White, "that it is not a sciatica, as it does not attack the hip joint in particular, *but the groin and labium pudendi of the same side, the inside of the thigh, leg, and foot, and the whole limb.*

"It is not rheumatism, as neither the joints nor muscles are principally affected; nor is there any external inflammation, *but on the contrary, the skin is rather paler than in a natural state;* and has attacked those who never had the rheumatism, either before or since, and those who have had no suspicion of catching cold.

"It is not an anasarca, because it is more tense and hard, and does not pit when pressed upon with the finger, nor subside so much by an horizontal posture; nor does any water issue from it, on its being punctured; nor is it so cold in any stage of the disorder.

"It is not a phlegmon, or an erysipelas, as there is *neither external inflammation nor eruption; and though one labium pudendi is greatly swelled, it never extends to the other in the smallest degree, except the limb on that side is also swelled;* neither is it an iliac abscess, or an abscess under the fascia lata, as *it never comes to suppuration.*"*

The last assertion of White has, indeed, been denied by some writers, viz.—"*it never comes to suppuration.*" But, the little that I have seen of this disease, and the far more that I have learned of it from the writings of others, convince me, however, that it is strictly true, as the author, no doubt, intended to be understood. That is, suppuration is not one of its common and ordinary occurring circumstances. That it may by mal-treatment, or some peculiar and complicating circumstances, not at all belonging to rse, be forced into that state; or rather, that the ay by such violent causes be extended to parts not seat of this disease, as the muscles and cellular d thus run on to suppuration, is no strange matter.

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* An Inquiry, &c. By Charles White, Esq., F. R. S., &c. Warrington edition, 1784, p. 37, 8.

r I osack regards phlegmasia dolens as an inflammation tissues of the limb: Blood-vessels, absorbents, muscles, r membrane, skin, &c.; thus imitating the schoolmaster, to be sure of chastising the culprit, whipped all the boys school; a very summary way of arriving at the object, dly consistent with justice or sound philosophy. With all nce to this learned and distinguished author, I must confess cannot conceive of an inflammation of all the blood-vessels limb, without the appearance of redness; nor so extensive mation as that involving every tissue of a part, without its ation in suppuration, gangrene, or other bad consequences, re frequently than happens in phlegmasia dolens.

so far objected to nearly all the explanations of the ximate cause of phlegmasia dolens, which have been offered to acceptance, the reader will probably think it time for me to re affirmatively.

stating my views on this subject, I am happy to say that they differ but little from those entertained by TRYE, GARDIEN and CAPURON; and are not inconsistent with the notions of DENMAN and FERRIAR as to its seat, and exciting causes.

I believe it to consist in a complete "*engorgement*" of the whole lymphatic system of the affected limb; produced by an inflamed condition of the different conglobate glands, through which the chief lymphatic vessels have to pass, on their way from the affected part, to the thoracic duct.

This inflammation may occur either primarily in one or more glands, or first in a principal lymphatic trunk, and thence extend to the glands. And this may originate either, 1st. from the gland or lymphatic trunk being bruised by the passage of the child's head through the pelvis during labour: or 2nd. from exposure to cold, and especially a damp or humid atmosphere; or the putting on of ill-dried clothes, during the irritable condition of the female system which attends the puerperal state: or 3rd. from the absorption of some acrimonious matter, whereby the internal surface of the lymphatics themselves may be excited to inflammation, and thence extended to their appropriate glands; or the matter may be transmitted to the glands, and there excite inflammation. My reasons for the opinions which have been advanced are briefly, as follow:

1st. The fact of every woman's exposure to one of the preceding exciting causes, and frequently to all of them.

2nd. The uniform occurrence of pain or uneasiness about the passage of the round ligament, in the groin, and down the inside of the thigh, *preceding* the existence of swelling or other affection of the limb whatsoever: showing conclusively the priority of disease in the glands and their communicating trunks.

3rd. The white colour of the affected limb; which can only be accounted for satisfactorily, by supposing an "*engorgement*" of the vessels which carry white fluids; for were it congestion of the blood-vessels, as in ordinary inflammation, there would necessarily be redness, instead of the white aspect.

4th. The state of the woman's system generally, as the pulse, tongue, hectic form of fever, &c., all of which manifest a state or condition totally different from what is observed in cases of high and unequivocal inflammatory action; evidencing a state of *irritation*, or inflammatory action of a low or sub-acute character. This state of irritation may be readily accounted for, by the great distention of the lymphatic vessels of the limb, throughout their utmost ramifications, and the consequent pressure which must thence be made upon the immensity of nervous fibrils by which they are surrounded.

Lastly. Its termination; which is far more uniform, and less fatal, than an equal extent of inflammation, attended with congestion of the blood-vessels, seated in any part of the body; proving, incontestibly, that it must have a course peculiar to itself; which course, very commonly commencing by a diminution of pain in the iliac and inguinal regions, and next of the swelling of the parts nearest those glands, indicates very clearly the seat of the disease to be in the lymphatic system, and especially the conglobate glands.

In illustration of the foregoing positions, I will now recite a few cases; touching only their most prominent points, that I may not transcend the limits prescribed to articles intended for publication

journal, in which variety of matter must necessa-
inent object.

Dr. Malcomb. *American Medical Recorder, Octo-*
At the sixth month she sent for me, when I found
g of severe pains about the hips and back, which
turbed her rest at nights. To relieve these symptoms,
vein at the arm and took sixteen ounces of blood, and
ve medicines to preserve her bowels in a soluble
e occasional use of an opiate if necessary.

time, she took her labour, when, after a short and
atively easy period, I delivered her of a healthy female
Nothing material occurred until the *eighth day after de-*
hen she began to complain of pains in the calves of both
ore particularly the left, which soon became more remark-
right, changing to the left, and lastly shifting and fixing
right viz. four days after the attack, when, *following*
mphatics on the inside of the leg and thigh, to the
nds, these also became painful; the limb now was greatly
d, its surface of a glossy and deadly paleness, and was insuffer-
ender to the slightest touch or pressure."

e 2nd. By Dr. R. M. Taliaferro. *American Medical Recorder, April*, 1818.—"She informed me, that about forty-eight hours previous to my being sent for, a pain and stiffness were felt in the groin, near the passage of the round ligament; shortly *after which* the swelling commenced, and upon examination I was surprised to see the limb, for it was at least double the ordinary size; it had a smooth shining appearance, and was very hot, though not red."

Case 3rd. By Dr. Lofland. *American Medical Recorder, July*, 1818.—"Sometime in September, 1816, I was called to visit a lady of delicate constitution, aged twenty-nine years. Fourteen days previous, she had been delivered of a fine child. Upon inquiry into the circumstances of her case, I found that she was labouring under what has been sometimes called the "*milk or swelled leg.*" She informed me that nothing remarkable had occurred since her delivery, until about twenty-four hours before my being sent for, when she was very much troubled with a pain and tossing in the lower belly; this, after a little, subsided entirely, and was succeeded by an intolerable and *excruciating pain and stiffness* *about the groin*, near the passage of the round ligament, and the origin of the sartorius muscle. This violence of pain continued down the course of the sartorius muscle, and settled near its insertion. *Immediately the swelling commenced;* and as it proceeded it procured an abatement of pain, till at last it ceased altogether. I was astonished to find, upon examination, the bulk of the limb, from the hip to the toes, more than double its ordinary size; it was very hot, *though not red;* it had a tense, pale, and somewhat shining appearance. The labium pudendi of the side affected was exceedingly swelled, and completely marked the extent of the disease laterally; this symptom is mentioned by Mr. WHITE, who considers it as a characteristic mark of the disease. In the present case it was so affected, that it in a great degree obstructed the flow of urine."

Remarks.—The preceding are all well marked cases of phlegmasia dolens. In each there was *great swelling of the extremity*, though it was *pale*, *hot*, *glossy*, *and exquisitely painful.* In all of them the pain experienced was precisely in the parts occupied by the lymphatics and their glands; and however severe the pain was in the course of the vessels prior to the glands being affected, as in Dr. MALCOMB's case, still there was no *swelling of the limb until the glands*, *through which those vessels passed*, *had become distinctly and severely affected;* and their "free return of lymph being obstructed," "engorgement" and swelling took place.

I have said that the disease may arise from the bruising of some of the lymphatics or their glands by the passage of the child's head. Of this I have at hand no direct proof; the possibility of it can, however, scarcely be denied. That it may arise from uterine irritation, and the absorption of acrid matter either generated there, or in any part of the extremity below the principal conglobate glands, we have the following proof:

1st. In the fourth case of WHITE; it occurred after the delivery of a dead child, which had been preceded by hæmorrhages, and other strong marks of uterine irritation; the lochia was also "putrid."

2nd. In the 6th case, reported by the same gentleman, it followed a premature birth of a dead child; she laboured under suppression of urine, "a large discharge, like fluor albus," &c.

3d. In the 9th case, of the same excellent author, it was preceded by "*a large and offensive discharge, per vaginam*, attended with violent forcing pains *and excoriation.*"

4th. Cases have happened from the absorption of matter from an ulcer on the leg, under the notice of Trye and others. Cases similar to the above, are also reported by Dr. Dickson of Edinburgh, and by almost every other author on the disease.

That it may be produced by cold, is proved by the case noticed by Dr. Hosack, Jr. of New York, by daily observation, and by the declarations of M. Capuron, and several other authors. It acts here as in the production of any other form of disease: and although men, as well as unmarried women, are sometimes attacked by it, still, the greater liability of females during the puerperal state, I apprehend, may be readily accounted for. It is well known that the nervous and absorbent systems exceed in females, the proportion of other parts, when compared with the other sex; and that those systems experience, during the gravid and puerperal condition, a considerable exaltation and development. The process of parturition, by the changes which are then produced in the whole circulation, especially the lymphatics of the lower extremities, in which the action had for a time been oppressed and languid, and now being suddenly relieved, produces a degree of irritability greater than at any other time; in this irritable state, a susceptibility to impressions exists, which renders them obnoxious to causes which in a different condition would be totally harmless.

Of the occasional existence of phlegmasia dolens in the unimpregnated, as well as pregnant female, we have several cases recorded; and in the male sex, a still greater number: among them we will merely mention one by Dr. Francis, another by Dr. Hosack, in the New York Hospital, and one by Dr. Bond, of this city. That by the latter gentleman is so instructive in all that relates to the disease, and so well reported, that I shall take the liberty of extracting a part of its history. The disease occurred in a man thirty-two years old, after a violent injury from the fall of a boat, by which his leg and thigh were broken, and some of the ligaments ruptured. His fractures were properly attended to, and "he continued, says Dr. Bond, as easy as could be reasonably expected, from the nature of the injury, until the 29th of April. In the afternoon of that day, which was precisely two weeks from the time of receiving the injury, a *pain commenced in the lower part of the abdomen, and the groin of the left side*, which was very intense during that night and the next day, in the evening of which I arrived.

"The fractured limb at this time gave him very little uneasiness; it was so well, that I had not seen him for two days. *The pain began in the course of the glands and lymphatics*, from the top of the thigh *towards the receptaculum chyli;* but there was some pain diffused through the left half of the pelvis. From the groin, the pain had gradually extended down the thigh to the knee, and into the calf of the leg, where it had reached when I arrived, and where there was, then, the most excruciating pain. It was a little more than twenty-four hours in passing down thus far. The limb was one third larger than natural, and the swelling was greatest in the thigh and knee.

"*May* 31*st*, *morning.*—The leg is more tumid than any other part of the limb; *skin is pale, hot, glossy, and* has an œdematous appearance; so extremely sore, that he can hardly endure to have it touched or moved."*

I shall here close this paper, announcing my intention, in a future number of this Journal, still further to illustrate this subject, by a detail of some cases which have fallen under my own notice; on which occasion, I shall also speak of the treatment.

ARTICLE III.—*Case of Ruptured Urethra.* Communicated by D. FRANCIS CONDIE, M. D.

PATRICK M'GONIGAL, aged about forty years, of a robust and healthy constitution, on the 4th of March last, whilst in the act of mounting a horse, was, in consequence of the strap of the stirrup giving way, thrown upon the ground; whilst lying upon his back, with his foot entangled in the stirrup, he made several violent but ineffectual efforts to regain his footing.

Being disengaged from the horse, and lifted from the ground, he was able to walk some considerable distance to his home; when he arrived there, he discovered that blood was flowing, profusely,

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* Philadelphia Journal of the Med. and Phys. Sciences, vol. II. p. 339.

s. About half past nine o'clock, P. M. I was sent
the patient sitting in a chair, a full stream of bright
d flowing from the orifice of the urethra; he com-
slight pain in the small of his back, and some degree
ess. On examination I could discover no mark of injury
any part of his body externally,—not even the slightest
h or bruise. The amount of blood he had by this time dis-
ed was considerable. He was directed to go to bed, to have
s wrung out of cold water applied around the penis, and to
ubes, and to take a dose of sulphas magnesiæ, in divided por-
s. Being sent for early on the morning of the 5th, I found
n in great agony, from a constant desire, without the ability, to
oid his urine. The bladder was greatly distended: he had never
fore been affected with a stoppage of the urine, and had, a few
utes previous to the accident, passed it in a full and free
m: during the night, he had discharged, at intervals, a small
tity of blood. From the whole of the circumstances of the
e, it was very evident, that the distention of the bladder was
used by blood, which had flowed in a retrograde direction, from
e urethra, into the cavity of the former. I sent for my catheters, and very readily passed one into the bladder,—through it was immediately discharged about a pint of blood, mixed with a small quantity of urine, followed by a number of small coagula; the discharge stopping, I withdrew the catheter, which was completely filled with coagulated blood. On attempting to introduce another of the same size and curvature, I found that I was unable again to pass it into the bladder:—after entering the urethra about an inch, the instrument appeared to escape from the natural canal, when its further progress was immediately arrested; by a slight change in the direction of the point of the instrument, this first impediment was, without much difficulty, overcome, and the catheter could be passed on, until it arrived at the arch of the pubes, where it was found to enter an unnatural opening at the inferior part of the urethra; its point being felt almost immediately beneath the skin. Finding my efforts to reach the bladder unavailing, I requested Dr. Reynell Coates to see the patient with me; the same impediment to the introduction of the catheter was still experienced, notwithstanding the size, form, and direction of the instrument were varied, in every possible manner:

on every attempt to introduce it considerable hæmorrhage was produced. The patient was directed to be put into a warm bath, to take a grain of opium, and to have cloths wrung out of warm water kept applied over the distended bladder. The attendance of Dr. J. Rhea Barton was now requested: an attempt was again made to pass the catheter, but without success. It was very evident to all of us, that the urethra had been torn across at two different places,—the one about an inch within the external orifice, the other at that part of the canal corresponding to nearly the centre of the scrotum. About twenty hours had now elapsed since the occurrence of the accident. The patient complained of much pain in the bladder, which latter was greatly distended, and rising considerably above the pubes. The propriety of an operation to evacuate the bladder of the blood and urine it contained, was suggested; as, however, the general system of the patient had, as yet, suffered but little; his pulse, strength and spirits continuing good, this, taken in connexion with the very doubtful result of any operation that could be performed, and the earnest intreaties of the patient to delay as long as was possible, induced us to wait the appearance of the case on the next day, before coming to any decision. In the mean time, the warm bath, warm fomentations over the pubes, and, internally, opium grs. iij. were directed. On visiting the patient on the morning of the 6th, I found, that during the night he had passed a considerable quantity of very dark coloured blood, mixed with urine; the distention of the bladder was somewhat reduced, and nearly all uneasy sensations were gone:—the scrotum and penis were somewhat swollen, and, together with the perinæum, were of a dark colour, from an injection of blood into the cellular tissue. The patient being costive, directed an enema. During the day, he continued to pass, at intervals, a large quantity of blood and urine, and during the night of the 7th, after a violent effort to empty the bladder, a coagulum escaped from the urethra, two or three inches in length, and nearly of the thickness of the little finger; it was followed by a very copious discharge of extremely dark coloured, somewhat fœtid urine.

8th. Nearly all swelling and uneasiness of the bladder removed: the urine passes off involuntary. Bowels being costive, directed a dose of castor oil. The patient appeared from this time to be gradually recovering from the effects of the accident, until the 14th, when he complained of tenderness along the course of the urethra, with heat and smarting in the act of passing his urine. Skin hot, pulse quick and frequent, thirst considerable. In the course of the day, the pain in the urethra greatly augmented; on examination, found the latter, particularly in the perinæum, swollen and hard: the scrotum was also greatly enlarged, tense and painful, presenting many of the appearances of hydrocele: directed twenty-four leeches to the urethra, and a dose of sulph. sodæ. From continued neglect on the part of the patient, the leeches were not applied until the 17th. The pain, hardness and swelling of the urethra, were greatly relieved by the topical depletion. In the evening, the discharge of urine was again entirely suspended: the bladder somewhat distended, bowels costive; directed the leeches to be repeated to the same extent as before, and the patient to take, occasionally, a dose of the compound powder of jalap; the scrotum and region of the bladder to be kept constantly fomented with cloths wrung out of warm water: from these the patient experienced very great relief; and, on the morning of the 19th, he passed a coagulum, four inches in length, and about the thickness of a common quill, perfectly white, and rounded at the extremities; the coagulum was followed by about a quart of dark coloured urine: swelling and pain of the urethra, and distention of the scrotum, greatly diminished; in which state they continued, the patient passing his urine naturally, until the evening of the 21st, when the inability to evacuate the bladder, with the pain and swelling of the scrotum, again returned: every attempt to introduce the catheter was ineffectual. By the 22nd the tumefaction of the scrotum extended half way to the knees; a very considerable swelling was also discovered in the perinæum, soft, and without pain. On attempting now to introduce the catheter, the instrument, after continuing in the course of the urethra for a few inches, suddenly dipped down within the scrotum, and from thence gave discharge to a very considerable quantity of thick, ropy, deep coloured urine. At this period of the case, Dr. Hewson had the kindness to see the patient with me: it was concluded, that in order to give a free passage to the urine, an incision should be made into the urethra, at the anterior part of the perinæum: this was accordingly done, and through this opening, the urine continued to be entirely discharged, until about the 30th. From the period of the operation, the swelling and inflammation of the scrotum very rapidly diminished, and were entirely removed by the end of the month, at which time the patient was able to walk out. The urine was now occasionally passed by the natural outlet; and by the 13th of April, the opening in the perinæum was entirely closed, and the patient discharged cured.

Remarks.—In regard to the foregoing case, it is not very easy to determine the actual cause by which the ruptures in the course of the urethra were produced. In the two cases referred to in DESAULT's Surgery, as well as in those reported in the number of the London Med. and Phys. Journal for January, 1827, the laceration was the result of an injury inflicted immediately upon the perinæum; but in the case before us, there is no positive evidence that any direct injury was received. It is true that the bystanders asserted, that whilst the patient lay upon the ground, with his foot entangled in the stirrup, he was trod upon by the horse; but the entire absence of any external contusion, or indeed even discolouration of the skin, would appear to render this highly improbable. PATISSIER (Dict. des Sci. Med., Art. Urèthre) assures us, that in two cases which came under his notice at the Hotel Dieu, the laceration took place spontaneously, from the mere efforts of the muscles: it is extremely difficult, however, to imagine in what manner muscular contraction could produce a rupture of the urethra.

It has been suggested, that as hæmaturia is frequently occasioned by violent falls, or great muscular exertion, the hæmorrhage, in the case of M'Gonigal, may have proceeded from the kidneys or bladder, and not from the injury of the urethra. Such an opinion is, however, fully refuted by every circumstance of the case. In hæmaturia, the blood, as it accumulates, excites in the patient, a desire to evacuate his bladder, and is not discharged, excepting by the same voluntary act as the urine; in this case, on the contrary, the blood flowed involuntarily; the patient had indeed lost a considerable quantity before he was even aware of the fact; pressure, likewise, upon the urethra, in perinæo, did not diminish the discharge, as would have been the case, if it had proceeded from the bladder; add to this the circumstance of the hæmorrhage being reinduced, upon every attempt to introduce the catheter, notwithstanding the instrument passed but a short distance, and the greatest care was observed to avoid any degree of violence.

The case presents us, we conceive, with one highly important fact:—extensive collections of blood in the bladder have, generally, been set down as cases of imminent danger, and various plans have been proposed to remove the blood, with the least possible delay; it being supposed, that if it were allowed to coagulate in the cavity of the bladder, it would be got rid of only by artificial means: the foregoing case, however, satisfactorily proves, that blood may accumulate to a considerable amount in that viscus; and even though coagulation should have taken place, it will, after a time, be redissolved, when it may be drawn off by means of the catheter, or will be discharged by the natural outlet, provided this be pervious.

It may be worth noticing, that in all the cases of ruptured urethra, which are upon record, there was retention of the urine; and in but one, were the surgeons in attendance able to introduce the catheter into the bladder; the nature of the impediment is not, however, distinctly mentioned.

ARTICLE IV.—*An Introductory Lecture to a Course of Clinical Lectures, in the Pennsylvania Hospital, delivered on the 3rd of December*, 1766. By THOMAS BOND, M. D. one of the Physicians to the Hospital.

OUR readers will be much gratified, we think, with the perusal of the following article, which, so far as we know, has never been published. We are indebted for the lecture to Mr. PAUL EVE, Student of Medicine, who obligingly copied it from the Minute-book of the Pennsylvania hospital, where it has been preserved, since the original entry; made in obedience to a vote of the Managers.

This was the first formal clinical lecture delivered in the United States; it is therefore a literary curiosity; and if it possessed no intrinsic interest, would on that account engage the attention of our readers, a majority of whom, probably, have partaken of the benefits of the clinical instructions, which, from that day to this, have been dispensed in that noble charity. The author enjoyed high distinction in his day, and the essay, we think, will not detract from his admitted claims to the respect of his successors.

We have given the whole of the record on this subject, which commences as follows:

"A letter was received from Dr. THOMAS BOND, in which he proposed to the Managers, they would give liberty and encouragement for the reading of clinical lectures to the students in Physic, on the nature, cause, and cure of diseases; and to put up a meteorological apparatus in the picture room, for observation of the weather, and keeping an exact account of the epidemic diseases thereby caused; and further requests this Board would appoint some suitable day this week, to see the Plan, intended to be proposed by the physicians of the hospital; and next 4th day afternoon at 3 o'clock being proposed, it is left to the Sitting Managers to summon the Board, at that, or other time, as after consulting the physicians they may conclude most convenient."

"On the 26th 11th month, 1766, in pursuance of the summons of the Sitting Managers, all the Managers (except Daniel Roberdeau and John Mease,) met at the house of Dr. THOMAS BOND, together with the following physicians, Dr. THOMAS BOND, Dr. CADWALLADER, Dr. SHIPPEN, Dr. REDMAN, and Dr. EVANS. And Dr. THOMAS BOND read in our presence, an essay on the utility of clinical lectures, and a plan for executing the same for the benefit of the students in physic, and promoting the good purposes of this institution; which is ordered to be inserted on the Minutes of this Board, being as follows:"

"Doctor THOMAS BOND'S *Introductory Lecture to a Course of Clinical Observations in the Pennsylvania Hospital, delivered there the 3rd of December*, 1766."

When I consider the unskilful hands the practice of Physic and Surgery has of necessity been committed to, in many parts of America, it gives me pleasure to behold so many worthy young men, training up in those professions, which, from the nature of their objects, are the most interesting to the community; and yet a greater pleasure in foreseeing, that the unparalleled public spirit of the good people of this province, will shortly make Philadelphia the Athens of America, and render the sons of Pennsylvania reputable amongst the most celebrated Europeans, in all the liberal arts and sciences:—This I am at present certain of, that, the institutions of literature and charity already founded, and the School of Physic lately opened in this city, afford sufficient foundation for the students of Physic to acquire all the knowledge necessary for the practising every branch of their profession, reputably, and judiciously.

The great expense in going from America to England, and thence from country to country, and college to college, in quest of medical qualifications, is often a bar to the cultivation of the brightest geniuses amongst us, who might otherwise be morning stars in their professions, and most useful members of society. Besides, every climate produces diseases peculiar to itself, which require experience to understand and cure; and even the diseases of the several seasons in the same country, are found to differ so much some years, from what they were in others, that SYDENHAM, the most sagacious physician that ever lived, acknowledges that he was often difficulted, and much mistaken in the treatment of epidemics for some time after their appearance.

No country then can be so proper for the instruction of youth in the knowledge of Physic, as that in which it is to be practised; where the precepts of never failing experience are handed down from father to son, from tutor to pupil.

That this is not a speculative opinion, but real matter of fact, may be proven from the savages of America, who without the assistance of literature, have been found possessed of skill in the cure of diseases incident to their climate, superior to the regular bred and most learned physicians, and that from their discoveries, the present practice of Physic has been enriched with some of the most valuable medicines now in use.

Therefore, from principles of patriotism and humanity, the Physic-school here should meet all the protection and encouragement the friends of their country, and well wishers of mankind, can possibly give it. Though it is yet in its infancy, from the judicious treatment of its guardians it is already become a forward child, and has the promising appearance of soon arriving to a vigorous and healthy maturity. The professors in it at present are few; but their departments include the most essential parts of education: another,* whose distinguished abilities will do honour to his country and the institution, is expected to join them in

* Dr. Kuhn.

spring; and I think he has little faith, who can doubt that so good an undertaking will ever fail of additional strength, and providential blessing. And I am certain nothing would give me so much pleasure, as to have it in my power to contribute the least mite towards its perfect establishment.

The professor of Anatomy and Physiology,* is well qualified for the task; his dissections are accurate and elegant, and his lectures, learned, judicious, and clear.

The professor of the Theory and Practice of Physic,† has had the best opportunities of improvement, joined to genius and application, and cannot fail of giving necessary and instructive lessons to the pupils.

The field this gentleman undertakes is very extensive, and has many difficulties which may mislead the footsteps of an uncautioned traveller; therefore, lectures, in which the different parts of the Theory and Practice of Physic are judiciously classed, and systematically explained, will prevent many perplexities the student would otherwise be embarrassed with, will unfold the doors of knowledge, and be of great use in directing and abridging his future studies; yet there is something further wanting; he must join examples with study, before he can be sufficiently qualified to prescribe for the sick; for, language and books alone, can never give him adequate ideas of diseases, and the best method of treating them. For which reasons, Infirmaries are justly reputed the grand theatres of medical knowledge.

There, the clinical professor comes in to the aid of speculation, and demonstrates the truth of theory, by facts: he meets his pupils at stated times in the hospital, and when a case presents, adapted to his purpose, he asks all those questions which lead to a certain knowledge of the disease, and parts affected; this he does in the most exact and particular manner, to convince the students how many, and what minute circumstances are often necessary to form a judgment of the curative indications, on which the safety and life of the patient depend; from all which circumstances and the present symptoms, he pronounces what the disease is, whether it is curable or incurable, in what manner it ought to be treated, and gives his reasons from authority or experience, for all he says on the occasion; and if the disease baffles the power of art, and the patient falls a sacrifice to it, he then brings his knowledge to the test, and fixes honour or discredit on his reputation by exposing all the morbid parts to view, and demonstrates by what means it produces death; and if perchance he finds something unexpected, which betrays an error in judgment, he, like a great and good man, immediately acknowledges the mistake, and for the benefit of survivors points out other methods by which it might have been happily treated. The latter part of this field of tuition is the surest method of obtaining just ideas of diseases. The great BOERHAAVE was so attentive to it, that he was not only present at the opening of human bodies, but frequently attended the slaughter houses in Leyden, to examine the carcasses of beasts; and being asked by a learned friend, by what means he acquired such uncommon certainty in the diagnostics and prognostics of diseases, answered, by examining dead bodies, studying SYDENHAM's observations, and BONETUS' Sepulchretum Anatomicum, both which he had read ten times, and each time with greater pleasure and improvement.

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* Dr. Shippen.

† Dr. Morgan.

But to give you more familiar instances of the utility of this practice, let me remind several of you, who were present last fall at the opening of two bodies, one of which died of asthmatic complaints, the other of a frenzy succeeded by a palsy, and ask you whether any thing short of ocular demonstration, could have given you just ideas of the causes of the patient's death; in one we saw a dropsy in the left side of the thorax, and a curious polypus with its growing fimbriæ of fourteen inches in length, (now in the hospital,) extending from the ventricle of the heart, far beyond the bifurcation of the pulmonary artery; in the other we found the brain partly suppurated, and the ventricle on the opposite side to that affected with paralysis, distended by a large quantity of limpid serum; and you must remember, that the state of all the morbid parts was predicted, before they were exposed to view; which may have a further advantage, by arousing in you an industrious pursuit after the most hidden causes of all the affections of the human body; and convince you what injury they do the living, who oppose a decent, painless, and well timed examination of the dead.

Thus all the professors in the best European colleges, go hand in hand, and co-operate with each other by regular chains of reasoning and occasional demonstrations, to the satisfaction and improvement of the students.

But more is required of us, in this late settled world, where new diseases often occur, and others common to many parts of Europe visit us too frequently, which it behoves the guardians of health to be very watchful of, that they may know them well, and by an hearty union, and brotherly communication of observations, investigate their causes and check their progress. The task is arduous, but it is a debt we owe to our friends and our country. The atmosphere which surrounds us is fine, and the air we breathe, free, pure, and naturally healthy, and I am fully persuaded we shall find, on strict inquiry, when it becomes otherwise, it is mostly from contagion imported, or neglected sources of putrefaction amongst ourselves, and, therefore, whenever we are able to demonstrate the causes, they may be removed and the effects prevented.

Our fathers, after insuring to us the full enjoyment of the inestimable blessings of religious and civil liberty, have settled us in a country that affords all the real comforts of life, and given us the prospect of becoming one day, a great and happy people; and I know only one objection to a prudent man's giving North America the preference to any other part of the British dominions for the place of his residence, which is, that the climate is sometimes productive of severe epidemic diseases in the summer and fall. The country is otherwise free from those tedious and dangerous fevers which frequently infest most parts of Europe. The last wet summer, and short space of hot dry weather in autumn, caused so many intermittents, from the southern suburbs of this city, all the way to Georgia, that I may venture to assert two-thirds of the inhabitants were not able to do the least business for many weeks, and some families, and even townships, were so distressed, that they had not well persons sufficient to attend the sick, during which time this city was unusually healthy. How respectable, then, would be the characters of those men, who should wipe this stain out of the American escutcheon, and rescue their country from such frequent calamities.

Sufficient encouragement to make the attempt, is found both in history, the books of Physic, and our own experience. Several instances are recorded of places that were so sickly, as to be uninhabited, until princes have ordered their physicians to search into the causes of their unhealthiness; and having discovered and removed them, made thereby valuable additions to their kingdoms. Was not our ancient and great master, HIPPOCRATES, so knowing in the cause of pestilential contagion, as to foresee an approaching plague, and send his pupils into the cities to take care of the sick? and has not HE, and SYDENHAM, the English Hippocrates, done infinite service to the healing art, and gained immortal honours to themselves, by their essays on epidemics, in which they not only accurately describe the diseases of their respective countries, but show the depraved constitution of the air, which produced each of them? Our own experience also affords much encouragement: when I first came into this city, the Dock was the common sewer of filth, and was such a nuisance to the inhabitants about it, that they were obliged to use more pounds of bark, than they have ounces since it has been raised and levelled. Another striking instance of the advantage of cleanliness for the preservation of health, affords me an opportunity of paying a tribute, justly due, to the wisdom of the legislature of this province, in framing the salutary laws for paving and regulating the streets of this city, and to the indefatigable industry and skill of the commissioners in executing them; whereby they have contributed so much to the healthiness of the inhabitants, that I am confident the whole expense will be repaired in ten years, by the lessening of the physic bills alone.

A farm within a few miles of this city was remarkably healthy for fifty years, whilst the tide overflowed the lowlands, near the dwelling house; but after they were banked in by ditches so ill contrived that they did not often discharge the water that fell into them for a considerable time, and until it became putrid, and thereby rendered the place as remarkably sickly as it had been before healthy, I was told by a gentleman of veracity, that he saw the corpses of nine tenants, that had been carried from it in a few years.

The yellow fever, which I take to be exactly the same distemper as the plague of Athens, described by THUCYDIDES, has been five different times in this city since my residence in it; the causes of three of them I was luckily able to trace, and am certain they were the same which produced a gaol fever in other places, and am of opinion the difference betwixt the appearance of these fevers, arises from the climate, and the different state the bodies are in when they imbibe the contagion; if so, the same methods which are taken to prevent a gaol fever, will equally prevent a yellow fever: it was in the year forty-one I first saw that horrid disease, which was then imported by a number of convicts from the Dublin gaol. The second time it prevailed, it was indigenous, from evident causes, and was principally confined to one square of the city. The third time, it was generated on board of crowded ships in the port, which brought in their passengers, in health, but soon after became very sickly. I here saw the appearance of contagion like a dim spark, which gradually increased to a blaze, and soon after burst into a terrible flame, carrying devastation with it; and after continuing two months, was extinguished by the profuse sweats of tertian fevers; but this is not the ordinary course of the contagion, it is usually checked by the cool evenings in September, and dies on the appearance of an October frost.

I lately visited an Irish passenger vessel, which brought the people perfectly healthy until they came in our river; I found five of them ill, and others unwell, and saw that the *fomes of* infection was spreading among them; I therefore ordered the ship to lay quarantine, to be well purified with the steams of sulphur, and with vinegar; directed the bedding and clothing of the people to be well washed and dried, before any person should be permitted to land out of her; after which, I advised separating the sick from the healthy. This was done by puttting twelve in different rooms in one house, and fourteen in another, out of the city; the conveniences of the two houses were much the same; in one of them little care was taken of the sick, who were laid upon the same foul beds, they (contrary to orders) brought to shore with them: the consequence was, that all the family catched the distemper, and the landlord died. In the other, my directions were strictly observed; the sick had clean clothes and clean bedding, were well attended, and soon recovered, without doing the least injury to any person that visited them; which confirms observations I had made before, that the contagion of malignant fevers lies in the air, confined and corrupted, by neglect of rags and other filth about the helpless sick, and not from their bodies.

As these heads shall be the subject of a future lecture, I shall at present only mention to you further, a few of those methods which have preserved individuals from prevailing diseases.

The inhabitants of Hispaniola have found the wearing flannel shirts to be a preservative against intermittent fevers in that sickly island; and as that disease is known to arise principally from inhaling a great quantity of the humidity of the air, I make no doubt it would also be of use in preventing them in our low, moist, level countries.

We know that the bark of sassafras contains many excellent medicinal virtues: my worthy friend, Mr. PETER FRANKLIN, told me, that he being, in the fall of the year, in the river Nanticoke, in Maryland, and on seeing the people on shore much afflicted with intermittent fevers, advised the mariners of the ship to drink freely, by way of prevention, of that aromatic and antiseptic medicine, but could not prevail on more than half the company to do it, and that he and all the others who took it, enjoyed perfect health, whilst not a single person of the rest escaped a severe attack of the epidemic disease: I have known other similar instances, which it is needless to mention, since this is remarkably pertinent.

But I have reason to expect that a more agreeable and equally certain preventative against our autumnal fevers, will be found in sulphurous chalybeate waters, which may be readily procured in most parts of America, especially where those diseases are most prevalent: a spring of this kind at Gloucester, within a few miles of this place, has been much used of late; has been so very serviceable to invalids, it has the appearance of being a valuable conveniency to the city. Persons under various diseases took lodgings in the village last season, for the advantage of drinking the waters at the fountain head, and though the fall was more sickly than has been known in the memory of man, not any one of the inhabitants near the Spaw, who drank it freely, had a touch of the prevailing disease; whilst the major part of those that did not, had more the appearance of ghosts, than living creatures. There were two houses, the habitations of father and son, within twenty feet of each other; the family of the father had suffered greatly from intermittent fevers the preceding fall, and some of them continued invalids till the middle of summer, when they were prevailed on to take the waters, after which they daily recovered health, bloom and vigour, and passed the sickly season without a complaint; whilst scarcely a person in that of the son, who did not take them, escaped a severe illness. It is well known from experience, that mineral waters are not only the most palatable, but the most salutary parts of the materia medica; and that the effect of those which are pure and properly impregnated with chalybeate principles, strengthen digestion, brace and counteract the summer's sun, dilute a thick putrid bile, (the instrument of mischief in all hot climates,) and immediately wash away putrefaction through the emunctories of the bowels, skin, or kidneys, and therefore appear to be natural preservatives against the effect of a hot, moist, and putrid atmosphere. Whether these waters will answer my sanguine expectations or not, must be left to the decision of time; if they should be found wanting, that ought not discourage our further pursuit; for since Providence has furnished every country with defences for the human body, against the inclemencies of heat and cold, why should we question whether Infinite Wisdom and Goodness has made equal provision against all other natural injuries of our constitution? Experience and reason encourage us to believe it has, and that the means might be discovered by diligent investigation, were our researches equal to the task. The above instances are therefore related to convince you, that the prevention of some of the epidemic diseases of America is not only a laudable and rational pursuit, but is more within the limits of human precaution than has generally been imagined; and to excite your particular attention to the improvement of this humane and interesting part of your profession, in which, and all other useful undertakings, I most sincerely wish you success.

I am now to inform you, gentlemen, that the managers and physicians of the Pennsylvania Hospital, on seeing the great number of you attending the school of Physic in this city, are of opinion, this excellent institution likewise affords a favourable opportunity of further improvement to you in the practical part of your profession; and being desirous it should answer all the good purposes intended by the generous contributors to it, have allotted to me the task of giving a course of clinical and meteorological observations in it, which I cheerfully undertake, (though the season of my life points out relaxation and retirement, rather than new incumbrances,) in hopes that remarks on the many curious cases that must daily occur, amongst an hundred and thirty sick persons, collected together at one time, may be very instructive to you, I therefore purpose to meet you at stated times here, and give you the best information in my power of the nature and treatment of chronical diseases, and of the proper management of ulcers, wounds, and fractures. I shall show you all the operations of surgery, and endeavour, from the experience of thirty years, to introduce you to a familiar acquaintance with the acute diseases of your own country; in order to which, I shall put up a complete meteorological apparatus, and endeavour to inform you of all the known properties of the atmosphere which surrounds us, and the effects its frequent variations produce on animal bodies; and confirm the doctrine, by an exact register of the weather, and of the prevailing diseases, both here and in the neighbouring provinces; to which I shall add all the interesting observations which may occur in private practice, and sincerely wish it may be in my power to do them to your satisfaction.

I have likewise the pleasure to inform you, that Dr. SMITH* has promised to go through a course of experimental philosophy in the college, for your instruction in Pneumatics, Hydraulics, and Mechanics, which will be of the greatest advantage to a ready comprehension of the meteorological lectures, and other parts of your Medical studies, and lay you under the highest obligations to that learned professor.

"Which, being considered, and the proposal unanimously approved, it is agreed—

That a meteorological apparatus may be fixed in the room where the anatomical paintings and casts are deposited, and it is recommended to the doctors, to employ some skilful and careful person to take down observations on the state of the air and weather, and duly to register the same.

And in as much as the exhibiting these lectures judiciously performed, is allowed will be an additional improvement, for the benefit of the students of Physic, it is agreed, that each student attending them (except such who are subject to the payment of the six pistoles heretofore agreed to be paid for their attending the wards,) shall pay to the Sitting Managers, or Treasurer, one guinea per annum, for the privilege of attending them, and the money arising from thence, shall be applied towards establishing and promoting the Medical Library.

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* The Provost.

Resolved,

That the Matron have particular directions, that bodies of the patients who die, should be taken into the upper hall, to be laid out in a suitable apartment there, to be provided for that purpose.

Also, Resolved,

That when the physicians shall conclude it necessary to open the bodies of any of the dead, that they previously consult the Sitting Managers, and obtain their consent."

ARTICLE V.—*Some Observations on Extra-Uterine Pregnancy.* By THOMAS C. JAMES, M. D., Professor of Midwifery in the Univerversity of Pennsylvania. Read before the College of Physicians Aug. 7, 1827.

IN this paper we propose giving a hasty sketch of what have been called *extra-uterine conceptions*, or what might, perhaps, with more propriety be termed extra-uterine pregnancies—as conception in the first instance may always be considered as taking place in the ovaria, and hence, extra-uterine or without the uterus.

A great number of facts have proved that the uterus is not the only place in which the fœtus may be formed and developed, as is demonstrated by those fœtuses which have been occasionally found in the proper abdominal cavity, in the fallopian tubes, and were increased to a considerable size in the ovaria themselves.

A fourth species of extra-uterine pregnancy has been lately noticed by Dr. BRESCHET of Paris, under the term of "*Graviditas in Uteri Substantia.*"

In this case the fœtus is found enclosed in the parenchyma of the uterus itself, excepting that a particular cyst separates it from the substance of that viscus.

In such instances it may be supposed that the ovum had insinuated itself, in its descent, into the orifice of one of the vascular sinuses that (according to anatomists) are to be found at the inferior part of the fallopian tubes, where it may have formed a cavity for itself by simple dilatation; or perhaps, as has been suggested, may have been impeded in that portion of the cavity of the fallopian tube itself which passes through the substance of the uterus.

If conceptions take place in the ovarium, as we shall suppose with HALLER, we cannot be surprised at these varieties of pregnancy—indeed we might wonder that they did not occur more frequently, as the fallopian tube, in this view of the subject, may only be considered as the canal destined to convey the ovum into the uterus—and since the uterine orifice of the tube is extremely small—whilst the extremity which is applied to the ovary is very large, comparatively speaking.

The manner in which the fœtus is nourished when it is retained in the ovary or the fallopian tube, does not differ essentially from the mode of nutrition of that which is received into the uterus. In extra-uterine pregnancy, as in that which is natural, there is a particular irritation established, which determines to the part to which it forms adhesions, an afflux of a greater quantity of fluids; and from the surface of the ovum *flocci* probably arise which adhere to the adjacent parts; frequently, those organs cannot furnish nutriment as readily and in as great quantity, because the parts to which the ovum adheres, are supplied with but a small number of vessels, whose diameters are still smaller. Hence, as experience proves, the fœtuses developed in these extraordinary ways are in general extremely diminutive and feeble.

Instances of fallopian pregnancies, if we may be allowed the term, are not very rare. Those of the ovary are more uncommon.

Nevertheless, well attested cases of their occurrence are to be met with, and a singular instance is recorded by Dr. GRANVILLE in the Philosophical Transactions for 1820, accompanied by two highly finished engravings, in which the fœtus appears to have reached the size that it generally has at the fourth month, and appeared perfect in all its parts: the placenta was formed, although of a smaller size than natural at that period. The uterus had also increased in size to that of the fourth month, but contained no decidua.

Whatever tends to prevent the passage of the ovum from the ovary into the fallopian tube, or from the tube into the uterus, may give occasion to what has been termed an extra-uterine conception, or more properly, extra-uterine pregnancy. It has been proved, by actual anatomical examination, that the mal-conformation of the fallopian tubes, and of the ovaria, has often been the cause of the preternatural affections alluded to.

Writers on this subject assert, that the signs or symptoms of extra-uterine pregnancy, are often to a certain degree similar to those of real or genuine pregnancy; and if in some instances a peculiar symptom has occurred, the circumstance of its not being constantly met with proves it to be equivocal, and insufficient to demonstrate satisfactorily that the fœtus has not only been conceived but also developed without the uterus. The impossibility of always detecting pregnancy with certainty, by the mere external symptoms, in its early period, sufficiently intimates that it would be equally difficult to distinguish extra-uterine pregnancy.

It is true that Petit, a celebrated surgeon and accoucheur in Paris, has laid down a number of symptoms, by which it may, as he supposed, be distinguished; but as they have all been proved to be fallacious, it will not be considered as necessary to enumerate them here.

We may nevertheless observe, that ovarian and tubal pregnancies are not unfrequently attended by many irregular, painful, and distressing complaints, and may be distinguishable from uterine pregnancies by these complaints continuing to increase in violence in proportion as the pregnancy advances, owing to the violent and preternatural distention of the narrow space in which the ovum is unhappily located, and from the irregular compression exercised on the abdominal viscera; whereas, in uterine pregnancies, many of the disagreeable symptoms originating in compression are relieved after the fourth month by quickening or the rising of the uterus out of the cavity of the pelvis.

In the cases of extra-uterine pregnancy which have fallen under my notice, the distention of the abdomen, or what might be termed the *abdominal tumour*, has commenced rather towards one or other of the iliac regions; and a greater degree of pain has been experienced than is usual in genuine pregnancy; more especially until after the period of quickening, as has just been observed: this was very remarkably illustrated in the case of Mrs. P. as detailed by Dr. Otto.

The symptoms indeed are extremely different in different patients, which in part depend upon the peculiar constitution of the individual, but more especially upon the nature of the organs affected.

It has been asserted, that it is by the examination *per vaginam* alone that we satisfactorily ascertain that the fœtus is extra-uterine, or without the cavity of the uterus; and that, although pregnancy should be considerably advanced, and even efforts to expel the fœtus should have taken place, the uterus will be found not to be much increased in size, that its neck will have suffered no alteration; but that it is equally long, hard, and thick, as in the unimpregnated state.

But this opinion so generally admitted is to be received with some caution, as several exceptions to the rule have occurred. For in some cases in which the fœtus has been contained in the fallopian tubes, or the ovaria, we are told that the uterus has been found enlarged, and the cervix dilated during the period of the pains, although the viscus itself was empty. A case to this effect is recited by Bertrandi, and Dr. Foart Simmons relates that in dissecting a woman, in whom the fœtus, placenta, and membranes, had been retained in one of the fallopian tubes, the uterus was found enlarged in the same proportion as it would have been had the pregnancy been perfectly natural. Levret and Turnbull also give us similar cases.

A very interesting case of extra-uterine, fallopian pregnancy, ending fatally, is related by T. Blizard, Esq. in the 5th volume of the Transactions of the Royal Society of Edinburgh. The female had been previously pregnant six times, and had miscarried but five weeks before her death. After considerable fatigue, she was seized with violent pain in the lower part of the abdomen, at about half past 11 in the morning, and died at 9 o'clock in the evening. After death, two quarts of blood, partly coagulated, were taken from the abdominal cavity, which appeared to have issued from a rupture, of the size of a small quill, in the pouch formed in the fallopian tube at the left side, about half way between its fimbriated extremity and the uterus, and which was about the size of a pigeon's egg. The ovum, which, by distention of the tube, the process of extra-uterine gestation going on, had occasioned this pouch, had probably been impeded in its passage to the uterus by some irregular contraction of the tube, as quicksilver passed readily from the uterus to the pouch, which proved that there was no permanent cause of obstruction.

The uterus was twice the natural size of its unimpregnated state, and a quantity of gelatinous substance extended through its cervix to the vagina. The pouch contained a membranous circle of the size of a scarlet bean, and within, another membrane, possibly chorion and amnion, but no fœtus was perceptible.

In the very interesting case related by Dr. **John Clarke**, (in 1st volume of the Medical and Chirurgical Transactions,) where the fœtus was detained in the fallopian tube, and death was occasioned by the hæmorrhage following its rupture, although the woman was but seven weeks advanced in pregnancy, yet the uterus was proportionably enlarged, the membrana decidua was formed in its cavity, and the usual mucus of pregnancy was secreted in its cervix.

The case heretofore cited from Dr. **Granville** goes to the establishment of the same fact, for the uterus had increased to the size it generally assumes at the end of the fourth month of actual utero-gestation.

It has been observed by the very experienced Dr. **Garthshore**, that conceptions in the *ovaria* or *fallopian tubes* will always be confined to the lower region of the abdomen, and the swelling will always begin on one side, and must constantly be attended with severe and increasing pain, which is said to be more acute when the conception is in the ovarium, than when it is in the tube. In these cases the menses are obstructed, and the milk secreted as in the case of uterine pregnancy.

In pure ventral cases, the menstrua, we are assured, are not obstructed, but will rather appear at regular periods, as in the unimpregnated state. The stomach is not so apt to be affected with sickness or vomiting in the early stages, neither are the breasts excited by the natural sympathy to secrete milk.

Extra-uterine pregnancy is always to be considered as extremely dangerous as it regards the mother. **Chambon**, a celebrated French physician, who has written very fully on the diseases of women, supposes that this danger may be diminished by the rupture of the membranes, or the sac in which the embryo is contained, by employing blood letting, and a regimen calculated to

nlargement, and facilitate its rupture. But the
woman which would be the necessary consequence
ated bleedings, and a low diet, could have but a
diminishing the size of the fœtus, so as to preserve
mother. Besides, in the cases just alluded to from
ZARD and Dr. CLARKE, the woman died from the rupture
allopian tube, when the whole ovum contained in it was
o large as a walnut; also, the rupture of the sac, most
ently takes place before we have ascertained the woman's
ancy, if the embryo is contained in the tubes or the ovaries.
been observed, that it is generally about the fourth month
the sac which contains the fœtus is ruptured, and before the
ence of pregnancy is manifested by its motion.

e following symptoms accompanied the rupture of the sac,
e two cases related by SABATIER, where it occurred towards
nd of the fourth month. The women suffered acute pains
two or three hours; after an interval of ease which suc-
d a still more severe pain, they perceived a gentle heat to
d within the abdomen which immediately subsided; the
tenance became pale; the pulse gradually ceased; the whole
was covered with a cold sweat, which was quickly succeed-
death: the succession of symptoms was so rapid that it was
impossible to administer any relief. The opening and examination of their bodies proved that their death was occasioned by the considerable quantity of blood that had been poured out by the ruptured vessels.

In the case related by Dr. CLARKE, where the rupture took place at the end of the seventh week after conception, the patient continued ill for three days before she expired; but in other respects the ultimate symptoms and appearances were similar.

In a number of recorded cases of extra-uterine pregnancy, it has been observed that at the period of eight, nine, or even ten months from the commencement of gestation, the symptoms of labour have actually occurred, the pain being very distressing; and a sanguineous discharge has taken place from the vagina and uterus—all which appearances gradually subside without the expulsion of the fœtus.

It is not improbable, that some of these cases were not, in the first instance, actually extra-uterine, but rather retroversions of the uterus with the fœtus contained in its cavity, (as explained by MERRIMAN,) until near the full period of utero-gestation, when the uterus has been ruptured and the fœtus expelled into the abdominal cavity—producing the attendant symptoms.*

In those cases where the fœtus has been found imbedded in the substance of the uterus itself, (*graviditas in uteri substantia*,) it has been observed that at a period not accurately determined, a rupture takes place, accompanied with an effusion of blood into the abdomen, death following as the quick and inevitable consequence.†

There are other terminations which are more favourable for the mother, but which also are more uncommon. Sometimes the fœtus dies before the rupture of the sac; sometimes it dries away, if I may so express it, and sometimes it putrefies. When the fœtus contracts and dries up after its death, there have been instances of women carrying it for many years, as twenty-five, thirty, forty-six, and fifty, and in a case related by Dr. CHESTON, even fifty-two years, without suffering any very great inconvenience from it, except from the sensation of weight.

A case has occurred in this city, in which the fœtus remained eighteen years in the cavity of the abdomen—the patient having been treated as labouring under dropsy;—and in this instance, at the end of nine months from conception, the pains of labour were experienced, and the accoucheur (the late Dr. DUNLAP) sent for, who continued in attendance for some days; but to no purpose as it regarded expulsion of the fœtus. The preparation is now in the possession of a member of the college, who it is hoped may be induced to favour us with the history of so interesting a case.

Women have been known to conceive again whilst in this situation, and bear healthy children.

In the case related by Dr. JOHN BARD of New York, (in the 2nd vol. of the Medical Observations and Inquiries,) the patient had borne one child previously, and at the end of nine months of

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* See also Garthshore, Lond. Med. Journ. vol. viiii. and Bartholine de insolitis partûs humani viis. Astruc Art d'Accoucher, chap. iv. p. 288. Dubois in Hist. of Royal Med. Society of Paris, vol. i. 1776, Bochard Journ. de Médecine, vol vi.

† Breschet in Medico-Chir. Trans. vol. xiii.

e regnancy, "had labour pains, but without a flow of
wat other discharge,"—the pains soon went off, and
of the abdomen diminished to a certain degree, but
nt, moveable tumour, inclining a little to the right
emained. She had a return of her menses; continued
nve months; conceived again; enjoyed better health;
the end of nine months, after a short and easy labour, was
ered of a healthy child. The extra-uterine fœtus was
y extracted by incision in the abscess, which ultimately form-
the tumour above mentioned, after which, the woman
recovered good health and was able to suckle her healthy
ild.

the case of Mrs. P., which has been fully and carefully drawn
by Dr. OTTO, and which was also witnessed by Drs. DEWEES,
FIELD, RUAN, and myself, nearly the same attendant circum-
ces were observed. As the case will be found appended to
paper, I shall not attempt to detail it here.

utrefaction of the fœtus takes place in the containing sac,
woman is exposed to the greatest danger; yet there are in-
ices where, by an admirable process of nature, she has got rid
the fœtus and its appendages by an artificial passage, without
g a victim to this putrefaction. The inflammation which
takes place, forms adhesions between the coats of the sac and the adjacent parts; suppuration ensues, matter is formed which discharges itself, sometimes through the parietes of the abdomen, and sometimes into the intestinal canal, through which, also, the fœtus is discharged in fragments.*

In a table of sixteen extra-uterine cases examined by Dr. GARTHSHORE, and extracted from the most respectable authorities, seven terminated by the bones of the fœtus having passed off by the rectum; in the nine others, the fœtuses were extracted through abscesses formed in the integuments of the abdomen—most of the women recovered entirely, and several of them bore healthy children afterwards.

Notwithstanding this, you will find the French surgeons and accoucheurs, dissuading from waiting for the operations of nature in these cases, and advising having early recourse to the operation of extracting the fœtus and appendages by what they call gastrotomy, or gastro-tubotomy. This certainly must be attended with great hazard, and we cannot at present approve of it; although a case is related where the operation was successfully performed by Dr. M'Knight of New York.

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* Vide Baynam Med. Repository, vol. xvii. Gunning in London Med. and Physical Journal, 1823. Roagno. Revue Med. and Lon. Med. and Phys. Journal, 1823.

In this case it is stated, on the authority of Dr. Mease,* that the woman became pregnant twenty-two months previous to the operation, and quickened, or felt the motion of the child, at the proper time. At the end of nine months she was taken with labour pains, but no child presented, and after some time the pains ceased, but without any diminution of size. She left her chamber and betook herself to her ordinary avocations, as it is stated, with good health, but an uneasy feeling in the abdomen. Twenty-two months after conception, as stated above, Dr. M'Knight extracted the child by *gastrotomy*. The placenta could not be found or extracted, the cord having been broken. The woman is said to have recovered from the operation. In these cases, it may be observed, that it is only the *fœtal* portion of the placenta that is formed, the maternal portion being added in the proper cavity of the uterus.

The following case was in part furnished by Wm. Aiken, surgeon, with whom I attended in consultation.

Mrs. B. aged twenty-six, the mother of one healthy child, aged about three years, became pregnant a second time in February, 1822, and when about two months advanced, was attacked with symptoms of abortion, the pains being regular, and considerable sanguineous discharge having taken place; the threatening symptoms temporarily abated, but returned in less than a month without any uterine discharge. The pains increased in violence as the abdominal tumour enlarged, so that towards the end of the sixth month, her torture had become so incessant as to induce a wish that premature labour might take place. At this time, a tumour about the size of the fœtal head was perceptible in the left iliac region, which appeared to be increased and forced downwards by the pains. About the end of the seventh month, labour seemed to have commenced in reality, but upon examination per vaginam, no os uteri could be felt; the pains mean time

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* Memoirs of Med. Soc. of London, vol iv.

requency and in strength, and at a time when the
red convulsed with agony, an organized substance
portion of the placenta was expelled; the hæmorr-
profuse, but upon examination per vaginam, no
ation could be perceived, and it was agreed in con-
that the case should be left to the operations of nature,
teri felt like that of the unimpregnated viscus. The
oriate regimen and general treatment were directed, and the
nued to improve in her general health; the abdo-
tumour still remaining, though somewhat decreased in size.
the beginning of the sixth month, milk had been secreted
e mammæ, and about this time flowed in quantity sufficient
ake her uncomfortable.

patient continued for a time to enjoy tolerable health, and
able to attend to her domestic concerns until the latter end
rch, 1823, when, after having been exposed to intemperate
r. she was attacked with violent pains in the abdomen,
omiting, and occasional diarrhœa; and continued in a
ng state until the 28th of June, when she expired.

n examination after death, made by Dr. HORNER, in the
ence of Dr. PHYSICK and myself, the remains of the fœtus
found in the cavity of the abdomen in a putrid and confused
mass—the whole so extremely offensive, and with such disorganization of the surrounding parts, that it appeared surprising that the unfortunate patient should have supported existence as long as she did. The uterus appeared in a comparatively sound state.

We confess we are inclined, with BURNS, to adopt the palliative plan, and to trust more to the powers of nature than to the surgical knife, with certain exceptions, which we may perhaps hereafter state. Hence, occasional blood-letting, when there is an inflammatory tendency; rest, anodynes and fomentations, when there is much pain, should be had recourse to.

When there is an appearance of commencing suppuration, it must be encouraged by proper poultices, and when the tumour points, it will generally, perhaps, be best to open it and endeavour to extract carefully the parts of the fœtus.

BURNS' chapter on this subject is worthy of attention, particularly for his valuable references, which certainly show extensive reading and judicious selection.

Philadelphia, August 17th, 1827.

My Dear Dr.—Agreeably to your request, I transmit to you a pretty exact outline of Mrs. P.'s case, drawn from my own observations, and other authentic sources.

In the morning of the 17th of October, 1823, I received a pressing message to see her, and found her in great agony from very severe pain in her right groin, and in the region of her stomach. She had before this been in good health, and the indisposition could not be traced to any thing she had eaten; but such was the violence of the attack, that I remained with her an hour, and ordered her, during this time, to lose sixteen ounces oi blood, to have a sinapism applied to her stomach, to take a cathartic, receive an enema, and then to begin with a camphor mixture, containing a good deal of laudanum. At a subsequent visit, on the same day, she lost more blood, and, in the course of my attendance, she was bled ten or eleven times.

At first, she had no fever, and her right leg and thigh were rather cold, according to her sensation and the touch of others, and have continued, in a slight degree, in this state ever since, as well as a large space opposite to the pain in the groin; these were all well rubbed with the oil of turpentine. Such was the severity of her pains, accompanied, in the early part of her indisposition, with a slight feverishness, that I visited her twice a day during the residue of the month, with the exception of two days in the latter part of it, on which I paid her but one visit each. Her sufferings continued so great, that there were but four days in November in which I did not see her, and on the 4th I called five times, and on the 5th, 6th, 7th and 18th, three times. There were but nine days in December I did not call on her; and saw her five times on the 4th, and twice on the 5th, 6th, 7th and 8th; in the latter part of the month, she was visibly better, and her condition improved so much that I visited her but four times in January following; the last being on the 14th.

I have been thus minute to show the violence and continuation of the pains: during three weeks, she did not even get out of bed to have it made, and the greater part of the time she could not rise without a renewal, in a measure, of her sufferings, the greatest caution being necessary in moving her. She has never since, for a moment, been entirely free from some slight uneasiness in her right groin, extending upwards to the right hypochondriac region, and backwards towards the kidney of the same side; in which a tumour ultimately appeared. It often happened that there was very severe pain in the stomach, and internally under the edges of the ribs of the right side, and when this was the case, she suffered less in the groin; at other times the pain in the stomach would be very acute, darting to the right shoulder and throat. She was at no time completely easy, but her feelings in this respect varied exceedingly, for she was subject to frequent irregular paroxysms of the most excruciating pain, that lasted a considerable time, and could not be traced to any exciting cause. Ever since the first attack, she has been obliged to lie on her back or right side, with her knees drawn up to relax the abdominal muscles; this has more especially been the case after the tumour enlarged, for any attempt to place herself on the left was immediately followed by great pain in the right groin, shooting up towards the kidney of the same side, and extending across the right hypochondriac region, and sometimes to the stomach, accompanied by a sense of compression and dragging of the parts that were pained.

I have mentioned, she lost a good deal of blood, and it was necessary to give frequently laxatives and enemata to keep her bowels open; at first, she was dieted rigidly. With this plan were combined various antispasmodics, anodynes, &c. such as camphor, laudanum, the black drop, opium in substance, oil of juniper, a large blister over the abdomen, hartshorn, asafœtida, Hoffman's anodyne, Haerlem oil, oil of peppermint, oil of cinnamon, guaiacum in powder, and the volatile tincture of guaiacum, valerian, ginger, belladonna, &c. During part of the time, she had the benefit of Dr. PARRISH's advice, who was called in consultation with me on the fourth of November, and she commenced taking the blue pill on the eighth of the same month, with a view of exciting a gentle salivation; its use was continued until the object was accomplished, a slight ptyalism was kept up two weeks, and the mouth continued sore some time afterwards. Her situation improved, as will be seen by referring to the history of my attendance, and she stated ultimately that she thought she was pregnant, for she had distinctly felt the sensation of quickening. My friend observed that these feelings were certainly entitled to great consideration, as she was the mother of seven children; but that her opinion would not merit so much respect, if this had been her first pregnancy, as her symptoms were so different from the ordinary evidences of that state. A tumour was felt a little above the right groin, and gradually increased—eventually a motion was felt in it, as she supposed, and led in the end to the adoption of her view of her situation. Is it possible that all these symptoms and sufferings were merely the effect of the extra-uterine conception? for such Mrs. P.'s proved to be.

On the 14th of January, 1824, nearly five months and a half before labour pains came on, I ceased visiting her, in consequence of the improvement in her condition, and although she continued feeble a good while, and had uncomfortable feelings, she did not find it necessary to apply for medical aid until her expected accouchement. When I was first called to attend her, she was nursing a child twenty-one months old, whom it was found necessary to wean very soon. My first visit on the 17th of October, 1823, could not have been more than four or five weeks after conception, for the labour pains commenced on the 24th of June following, which was about ten days later than she calculated her confinement would take place. Nor is it possible to be more exact in these cases. From former experience, she supposed it would occur at a given time after she quickened, and the period when labour actually commenced justified her calculation. She is very positive she felt the sensation of quickening, and she is the mother of seven children, and has therefore had ample means of judging. In fact, it was this feeling that first made her believe she was pregnant, for although some of her female friends had bantered her upon the subject, from her looks, in the latter part of September, and the state of her stomach, palpitation of heart, and peculiar giddiness, all confirmed in her mind their supposition, (for these symptoms always attended pregnancy with her, and had never deceived her,) she nevertheless thought that weakness occasioned by nursing an infant twenty months old, in hot weather, might account for them. Besides, she menstruated a fortnight after my attendance commenced, which had never happened to her during any former pregnancy, and this satisfied her, at that time, she was not in a family way; and she continued to do so regularly until the expected time of her confinement, but the quantity was not more than one-third of what had been common with her. During the period of gestation, she was conscious of having all those feelings she usually had during pregnancy, and was equally sensible of the motions of the child. They continued lively until the third day after labour pains commenced, and then ceased entirely. The next morning she remarked to her sister-in-law, she was apprehensive her infant was dead, as it remained so perfectly quiet. On the evening of the 24th of June, 1824, she sent for her female friends and accoucheur, expecting from her sensations that their assistance would be required. She had all her usual feelings upon such occasions, except that the pains were confined, in this instance, entirely to the right side, the left throughout being exempt from any. They were quite severe in the beginning, and continued about twelve days, but with diminished violence, and then subsided entirely without the birth of a child, or any discharge whatever. She has remained equally large ever since, having the appearance of a female in the advanced state of pregnancy; when dressed, the eye can perceive no difference in the two sides of the abdomen, but an examination by the hand readily discovers a large tumour in the right, which has remained stationary as to size, but has become more hard the last twelve months, without exciting any increased permanent pain or uneasiness. About three days after the child ceased to move, she had a slight fever, as has been customary with her, after the birth of a child; her breasts became swelled, painful and hard, and milk was secreted and discharged.

The train of events described, with probably some other circumstances, induced her experienced accoucheurs to form the conclusion that she had an extra-uterine fœtus, and they accordingly communicated this unpleasant information to her husband.

During the last of July, and the beginning of August, including a space of six or eight days, there was occasionally an unnatural and offensive discharge from the vagina, sometimes of a reddish, and then inclining to a chocolate colour. This was followed by a flooding of two or three hours. On the 9th of the latter month, there was an abortion, which was supposed by those well qualified to judge, to be about two months old. This embryo was presumed, of course, to be in the uterus before the labour pains took place, and as it was imagined the womb had now discharged the whole of its contents, it verified the opinion already given that she had an extra-uterine fœtus within her.

After the recovery of her strength she menstruated, and the catamenia continued regularly to flow in their former quantity, until she again became pregnant, about nine months since, when they ceased, as has been usual with her in that state. The tumour occasioned her to be uncomfortable, and to be guarded in her movements, for her abdomen continued always afterwards to be distended to the size of the last stage of pregnancy, but in other respects, she has, since August, 1824, enjoyed good health, and has manifested it strongly in her appearance, with very slight interruptions by a little occasional fever. As pregnancy advanced, she was obliged to lie exclusively on her back, as the pressure of the womb on the tumour, when she attempted to lie on the right side, caused great pain in it; and the motion of the child, when considerable, even when lying in her most favourite and easy posture, likewise excited uneasiness, and sometimes acute suffering in it so that her situation, for several months, has been rather a distressed one; she was, however, cheerful, full in her habit, and healthy in aspect.

When the abdomen was examined before delivery, it was very easy to feel the line of separation between the distended uterus and the tumour; the former was much softer, was on the left, and rose so high, in part, as to be above it; and seemed to surround nearly one half of it. Indeed, it had the appearance of forming a considerable mechanical obstruction to the easy descent and birth of the child. Ever since the abortion in August, 1824, when she menstruated, there has been a good deal of pain in it, the day before the flow and the first day of it; from which circumstance it would seem probable, that the extra-uterine fœtus must be situated in the right ovarium, as the ovaria or one of them at least is necessary to menstruation, and they are doubtless brought into unusual action on this occasion.

At four o'clock in the afternoon of the 12th instant, she felt the first symptoms of approaching labour, and they increased so much by eight that she sent for her friends, and at ten o'clock Dr. Ruan was in attendance, and by twelve I am happy to state, she presented her husband with a fine, fat, healthy daughter, of the usual size. She has now a good deal of nourishment for her infant, and promises to make an excellent nurse. She suffered rather more than she had done upon some similar occasions, but not so much as upon some others; and her accoucheur thinks the tumour had not much influence in retarding the birth of the child: her sufferings, however, during the throes of labour, were increased by the pressure on it, and she still continues to feel a little pain in it, and in her right groin. At the commencement of the labour the uneasiness occasioned by the compression of it, did not permit her to ascertain clearly the real nature of her first pains, and her mind too, from her former disappointment, was necessarily filled with great apprehensions as to the event of the case. She was, however, greatly supported by the kind attentions and cheering assurances of her medical attendant. Although lessened in size, she has still the appearance of a female in the last period of pregnancy.

The records of medicine show that this state of things will often remain for years unaltered, and then terminate in various ways. From the success that has recently attended the extirpation of several large diseased ovaria by a surgical operation, it has been suggested to her to try this expedient, but at present she entirely inclines to wait the operations of nature. I have given the account of this case beyond the period of my professional visits, presuming it would be more acceptable to you to have it continued to the present time, as it renders it more complete, and embraces some interesting facts. Yours, truly,

JOHN C. OTTO.

Dr. Thomas C. James.

Article VI.—*Case of a very painful and protracted Nervous Headach, cured by Arsenic.* By Joseph M. Alexander, M. D., of N. C. Communicated in a Letter to John C. Otto, M. D., one of the Physicians to the Pennsylvania Hospital.

Major James Harris, aged about fifty-three years, from his earliest recollection was afflicted with a severe periodical headach, generally once a week, and never less frequently than once in two weeks. This uniformity of attack continued until he attained to maturity. After that period of life, the complaint became less frequent, but not less severe, and commonly recurred once a month. The head at one time would be generally, at another only partially affected, each side being equally liable to suffer; sometimes, the attack would be very sudden; at others, more lingering and gradual, but always producing a general torpor with an inclination to sleep, followed by more intense pain and a disposition to vomit. In this situation, if the stomach was full and then freely evacuated, and vomiting was succeeded by from one to three hours' sleep, he would rise in apparently perfect health; but if this was not the case, the paroxysm was more protracted, and left the system more fatigued and debilitated.

For the last twelve or fifteen years, the complaint became more severe, and more irregular; sometimes there would not be an interval of more than two or three days, and never more than a month, between the paroxysms. The least change in the general habits of life, either in diet, clothing, or occupation, produced a recurrence of it. The appetite became irregular; occasionally there was no inclination for food for two days, at other times a desire for it was quite urgent. This last feeling was generally indicative of a return of the complaint. The bowels became affected with costiveness or diarrhœa—the same stupidity and inclination to sleep attended each attack—the vomiting was more difficult and distressing, and the diarrhœa more frequent and painful. Of late years, the nervous system became much affected, so that during, and for a short time after a paroxysm, the agitation and tremor of the nerves were like those of a person labouring under palsy. A great stupidity was induced, and the attack subsided by a dysentery, followed by a giddiness, so as to render it necessary to support the body by holding by something in lying down or in rising up, to prevent falling, which occurrence sometimes took place. The vertigo often happened when he was erect and walking moderately. For the last few years, his general health became more impaired, manifested by a loss of strength and a wasting of flesh. Perspiration was difficult and greatly diminished, so that exercise and labour produced but little secretion on the surface of the body, while a general feebleness and faintness ensued. Although in the intervals of the attack, when they had been long, the general health and ability of the body appeared not to be greatly impaired; yet in the course of the last year the morbid debility of the nervous system was evidently progressing to a paralytic affection. To alleviate this distressing disease, frequent applications had been made, and various remedies used; but all in vain. Medicine, so far from preventing a recurrence of it, had never even moderated an attack. Blood-letting sometimes appeared to shorten its duration or render more mild its effects. In July last, Major Harris consented, as a last resort, to take arsenic. It was administered, in the form of Fowler's solution, in doses of from three to six drops in a little water; at first twice, and then three times a day, about half an hour after each meal, until it produced flushing and swelling of the face, stiffness of the eyelids, and inaccurate vision, accompanied by a very free diaphoresis. These effects took place in eight days; the arsenical impression was kept up two days longer, and then permitted to subside gradually, by giving smaller doses, daily diminished, for six days. No restrictions as to diet, drink, or exercise were imposed. The effect of the arsenic, from the first to the last dose, was uniform; it produced an agreeable sensation, as of a warm, diffusive, invigorating stimulus, and an entire removal of the disease that had continued from early life. By a letter from Major Harris, of the 26th of September, information was received that he had not experienced the smallest recurrence of his former complaint since he left us—his head is steady, nerves undisturbed, appetite good, digestion perfect, bowels regular, and free from uneasiness; the perspiration is easy and natural, and general health good.

Alexandriana, N. C., October, 1819.

P. S. In a subsequent letter received from Dr. ALEXANDER, he states, that about the 10th of February 1820, he saw Major Harris, and was informed by him that he had not had the least return of his former disease.

NOTE.—I knew a lady, now long since dead, who suffered many years from what is usually called sick head-ach, that came on in paroxysms that increased in frequency and violence, and ultimately confined her each time to quietude and her bed three days, and destroyed the comfort of her life, who was entirely relieved by taking Fowler's solution. She lived several years afterwards, free from this distressing complaint. J. C. O.

ARTICLE VII.—*Observations on the use of Sulphuric Acid in the Cure of Intemperance; with Cases.* By W. D. BRINCKLE, M. D.

IN the fifth volume of the Medico-Chirurgical Review, page 480, it is stated, on the authority of a foreign journal, that M. BRUHL CRAMER, a German physician, has discovered that sulphuric acid taken with occasional bitters, completely eradicates the disposition to the intemperate use of ardent spirits, by exciting a disgust to all spirituous potations.

Aware of the difficulty of overcoming a habit so fascinating, I received the above information with some degree of distrust. Still, I was urged, by my hopes of success, to give the plan a trial, whenever a favourable opportunity should be presented. Early in July, 1826, a case offered.

Case 1. A. H., aged thirty-three years, has for a long time been addicted to habits of intemperance. For the last three years, he has taken from one to four pints of brandy, gin, whiskey, or rum, every day, with the exception of an interval of three weeks nearly a year ago. Repeated attacks of mania a potu had been brought on; in one of these I had given him seventy-five grains of opium, besides a considerable quantity of laudanum, in the course of three days, before sleep could be induced; by which he was completely relieved. When called to him on the 5th of July, he was verging towards mania a potu. His wife informed me that he now was drinking from one to two quarts of rum per day, besides two, three, and four bottles of porter. I requested her to mix a drachm of sulphuric acid in a pint of rum; this was accordingly done; he had not taken much of it, however, before he detected a difference in the taste, and refused to take the remainder, which he threw out, under the apprehension that poison had been put in it. More of the liquor was sent for, and the same proportion of the acid added. After taking about half a pint of this, he again refused it, declaring that it also contained poison. Although he would probably have still taken the rum without the addition of the acid, I desired his wife not to let him have it. At this time, the symptoms of mania a potu became completely developed. This was the fourth attack of that disease, and was soon subdued by the liberal use of opium, in conjunction with a strong infusion of common hop.* Several days after his recovery, I called to see him, and inquired whether he continued to abstain from the use of spiritous liquors. He answered in the affirmative, and the same information was given by his wife. He said he had felt, several times, as if he wanted something, but could not tell what; he thought of several articles of food, but it was nothing of that kind; he next thought of ardent spirits, but the mere idea excited disgust; this he seemed surprised at, as it never was the case before. He was still ignorant of any attempt having been made to overcome his habits of intemperance. About a week after this, his wife informed me that when he came home the preceding evening, he told her some of the men, with whom he worked, had been drinking, and that the odour of the liquor was so unpleasant to him that he could scarcely refrain from vomiting. This disinclination for all spirituous liquors continued until the 19th of August. On that day, after considerable solicitation, he was prevailed on by a companion to visit a tavern, where they indulged pretty freely in the intoxicating draught. On the 23rd, he told me that his desire for ardent spirits had returned; and requested that I would again give him something to destroy this habit, which he acknowledged he was unable to resist. I added a drachm of the acid to a pint of brandy, and directed him to take four wine glassfuls per day. The third dose occasioned vomiting. After much persuasion he attempted to take another dose, but it was so unpleasant to him, that he only succeeded in swallowing half of it. By this time, however, his desire for ardent spirits had ceased.

A day or two after I was first called to the preceding case, another of the kind presented itself.

Case 2. H. W., aged forty years, had always been an honest and industrious man, an inoffensive neighbour, and a kind and affectionate husband. His wife informed me that he had been in a frolic about a week previously; since which time, he had done nothing but throw himself away, as she expressed it. She expostulated with him, and endeavoured to persuade him to abandon the course he was pursuing. But all to no purpose. He acknowledged his folly, and said he was convinced he was injuring himself; but notwithstanding all this, he confessed his total inability to refrain from drinking. I added a drachm of sulphuric acid to a pint of whiskey, and requested his wife to give him a wine glassful every hour. His wife told him that as he was conscious the brandy was injuring him, and yet could not relinquish its use, she had requested me to put something in it to counteract its injurious effects. This information gratified him, and he consented to take no liquor but what she gave him. She poured out a wine glassful, and he took it with much satisfaction. In an hour, she poured out a second, and although his desire for it was not so great, he drank it. The next hour she poured out the third dose, he said he believed he did not want any more. She told him it would not injure him, as the doctor had added something to it to prevent its producing any effect of that kind. He still declined taking it, alleging that he felt no inclination for it. She then proposed wine or porter; but he persisted in refusing every thing of the kind. Since that time he has had such a disgust for all spirituous liquors, that he has uniformly refrained from their use. This was a striking case, and one which unequivocally manifested the efficacy of the sulphuric acid in eradicating the disposition to indulge in the use of inebriating potations. So great was the impression made on the mind of the individual, and so sensible was he that his relief was attributable to what was put in the liquor, that he called on me in a few days to express his gratitude for the important service I had rendered him.

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* It may not be improper here to mention, that the latter article is a remedy of much value in mania a potu. My knowledge of its utility, in these cases, was originally derived from Dr. Physick; to whom, as far as I know, the credit is due of introducing it into the treatment of this disease.

Case 3. C. B. had been an intemperate man for many years. So freely had he indulged in the use of ardent spirits, that his constitution was materially impaired. He commenced taking the remedy at the request of the gentleman by whom he was employed. One pint of gin containing a drachm of the acid was sufficient to destroy his inclination for all kinds of ardent spirits.

The only cases, in which I have had an opportunity of ascertaining the effects of the remedy, have now been detailed, and I trust, with candour. Certain I am, that there has been no intention on my part to impose on others; and future trials must determine whether or not I have been deceived myself.

These facts I have been induced to lay before the profession mainly with a view of calling their attention to the subject of intemperance. It is a subject which is exceedingly interesting to every humane individual; and one which involves the spiritual, as well as temporal concerns of thousands of our fellow creatures. The domestic unhappiness, the misery, and the depravity, which proceed from this cause, have not escaped the observation of any one. But to remedy the evil, has ever been a desideratum; for there is, confessedly, no habit more fascinating, or more difficult to conquer. Men of the first respectability, men of the most extensive acquirements, and of the greatest mental capacities, find it as impossible to emancipate themselves from this hateful practise, as those in more humble life. The entreaties of friends, the sneers of foes, the sage advice of the moralist, are alike disregarded. Although at times they may be convinced of the impropriety of their conduct—although conscience may now and then alarm them, soon their perturbed reflections are immersed in the inebriating draught. Since it is so difficult, and yet so important, to eradicate habits of intemperance, any remedy, which promises to be serviceable in this way, merits the attention of a profession, which so eminently prompts its disciples to deeds of charity and benevolence. Daily opportunities present themselves of testing the power of the sulphuric acid; some of these, we trust, will be embraced; and the result, whether successful or not, made known.

What has now been said, we hope, will be sufficient to excite the attention of American physicians to the subject of intemperance. In no country, perhaps, in the world, does this vice abound more than in our own; and should the sulphuric acid even occasionally be found to excite disgust towards spirituous potations, it would prove an incalculable blessing to man.

I cannot refrain from expressing my regret, that we have no institution for the relief of persons addicted to intemperance. Notwithstanding the many charitable and benevolent societies by which we are surrounded, the poor drunkard is forgotten, or perhaps his vice is even encouraged indirectly by these very establishments. Could there be an Asylum for the reception of such persons, their intemperate habits could unquestionably, in some instances, be eradicated in one way or another. Let the medical profession once have a fair opportunity of directing their exertions to the suppression of intemperance, and we fear not an unfavourable result to their investigations. It would give us unfeigned pleasure to see this subject engage the attention of those humane individuals, whose numerous philanthropic acts have rendered them a blessing to their country. Every one with whom we have conversed appears to be sensible of the importance of instituting a society for the suppression of intemperance: nor is the practicability of establishing a society of this kind less generally conceded. We hope, therefore, that measures will be taken by our enterprising citizens, to accomplish this design.

Philadelphia, Sept. 1, 1826.

The preceding observations were written nearly a year ago, with a view to publication; but by the advice of an eminent medical friend, I was induced to withhold them from the public, until I could obtain additional evidence of the efficacy of the remedy. Having, in the mean time, had many opportunities of prescribing the remedy, I am now prepared to make a more correct estimate of its value.

With regard to the second and third cases, the cure appears to be complete; but I have not since met with an instance where so small a quantity as was used in the second case, had the desired effect. In the first there was a relapse several times; but a recurrence to the remedy invariably excited the desired disgust. I have met with several other cases, where a relapse ensued at the expiration of three, four, and six weeks; but in the greater number of cases, the disinclination to the use of ardent spirits has so far continued. Some of the individuals have not indulged in their former favourite beverage, for three, four, six, eight, ten, and twelve months. A single case of complete failure has come to my knowledge; in this instance, the use of the remedy was persisted in for about a month, without occasioning the desired effect: the dose, however, by this time, had become so extremely disagreeable to him, that he declared he would rather have his hand cut off than continue to take it: still no effect was produced on his appetite for liquor which did not contain the acid: I was surprised to find, in this case, that the dose was rendered comparatively palatable, by the addition of a portion of hop tea. Candour compels me to say, that I have directed the remedy in many cases, without having been able to ascertain the result. Whether or not there have been failures among any of these, it is not in my power to state; the only one of which I have any knowledge, has been mentioned.

In a few cases, a single pint of the medicated liquor is sufficient; sometimes a quart is necessary, and occasionally several gallons are required to eradicate the habit of intemperance.

My usual practice is to add a drachm of the acid to a pint of any description of liquor the patient prefers: now and then I find it necessary to augment the quantity of acid to two drachms to the pint. The dose is a wine glassful every one, two, or three hours; the interval between the doses being regulated by the quantity of liquor the patient has previously been in the habit of taking; I always request that it may not be taken to the extent of producing intoxication. An individual, about three weeks ago, instead of attending to the directions, took a quart of liquor, containing two drachms of the acid, in less than two hours, and requested his wife to go for more, which she refused to do before the next day; but on the ensuing day, he told her it was not necessary to get any more, as his desire for ardent spirits had ceased. No bad effect was occasioned by so large a quantity being taken in so short a period.

In one instance where the remedy was directed without the knowledge of the individual, the alteration in the taste of the liquor prevented its being taken: on being informed of this circumstance, I ordered a weak tincture of ipecacuanha to be made, containing a drachm to the quart; and as the taste of the liquor was not perceptibly altered, it was taken without suspicion: by this means, a considerable degree of nausea was kept up, and vomiting was occasionally excited: he continued to take it, however, until he finished two quarts; since which, he has felt no desire for ardent spirits: although it has repeatedly been offered to him, he has uniformly refused it. I have succeeded in four or five other cases with the ipecacuanha: indeed, I now make it a rule to give the latter, where the patient refuses to take the former, or where he is unwilling to take any remedy; and I prefer it in these cases, because it can be given without the knowledge of the individual, which is often an important consideration; for I not unfrequently have applications from females, who are so unfortunate as to have husbands addicted to intemperance, and yet so infatuated as to refuse to take any thing which they might suppose would deprive them of their relish for spirituous potations. I have succeeded in several cases of this description; and to this day, the individuals have not been able to account for their disgust to ardent spirits. I commence its use by directing a drachm of pulverized ipecacuanha to be infused in a quart of any kind of ardent spirits, for ten or twelve hours; after which the liquor is to be decanted, and taken ad libitum: where a sufficient degree of nausea is not excited, the proportion of ipecacuanha is to be augmented.

I may here remark, that ipecacuanha appears to be the active constituent, in the remedy of Dr. Chambers of New York, disguised with cochineal, gum ammoniac, and some other unimportant articles; and from its occasional harsh effects, I am inclined to believe that it contains, at least sometimes, a portion of emetic tartar.

We are pleased to find that a society has just been established, in this city, for the purpose of discouraging the use of ardent spirits: from the conspicuous station which many of its members hold in society, joined to their well known zeal in the promotion of objects of benevolence and public utility, we anticipate much good from their labours. It is quite gratifying to observe so respectable a number of medical gentlemen in the list of managers.

The able report of a committee of the Board of Guardians of the Poor of the City and Districts of Philadelphia, recently published, contains the following important remarks:—

"Another indispensable institution remains to be established; we allude to an Asylum for the Intemperate: this, if erected, and properly conducted, would tend to stop the progress of an increasing and destructive evil. If full powers were granted to its directors, to arrest and detain these brutalized beings, otherwise devoted to shame and reproach, a more effectual blow would be inflicted upon pauperism than could be achieved by any other means; for drunkenness is the parent of every crime, and disease and want its inseparable followers." An asylum of this description, we are fully persuaded, would be productive of results the most beneficial.

W. D. BRINCKLE, M. D.

Philadelphia, August 1st, 1827.

ARTICLE VIII.—*Observations on a form of Constipation liable to be mistaken for Diarrhœa.* By JOSEPH PARRISH, M. D., one of the Surgeons of the Pennsylvania Hospital.

THE form of constipation of which I purpose to treat, has long since attracted the notice of physicians. My attention was first called to it by an account of two cases contained in the "London Medical Observations and Inquiries," communicated for that journal by the celebrated Dr. FOTHERGILL; from the perusal of which, in the early period of my practice, I derived much benefit.* Other cases of a similar character have been subsequently recorded; but, as the subject is of great importance, and as, in the experience of every practitioner, varieties often occur, which, when made known, serve to enlarge the sphere of useful medical information, I have thought that the following cases, with the few accompanying observations, might not be destitute of interest to my professional brethren.

It occasionally happens that we are called to patients labouring under apparent diarrhœa, with frequent liquid evacuations, which in fact depend upon the collection of a mass of impacted and hardened fæces in the large intestines. The importance of forming a proper diagnosis must be obvious to every one; as treatment calculated to lessen or arrest the peristaltic action, would certainly aggravate the disorder. In one of the cases recorded in the London Medical Observations, though, after long suffering, considerable relief was obtained by the discovery and removal of the offending cause, yet so much mischief had been previously produced, that the system of the patient sunk, and death ultimately resulted. The liability to mistake is increased by the insidious manner in which the complaint sometimes makes its approach. The patient has regular daily evacuations—a portion of the fæces being discharged, and a portion retained—till at length the accumulation becomes so great, and the mass so compact and hard, that the bowels are totally unable to overcome its resistance. But the passages, instead of being diminished, are now increased in number. The irritation of the mucous coat gives rise to augmented secretion; and the liquid, finding its way between the hardened mass and the side of the bowel, is discharged by stool. This happens more frequently as the irritation becomes greater, till at length the patient, believing himself to be affected with looseness of the bowels, and wearing away with the violence of the complaint, applies for medical advice. Should the physician, listening to his representations, mistake the nature of the affection, and treat it as diarrhœa, the most serious consequences may be apprehended. An attentive examination of the symptoms will always enable him to form a correct judgment.

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* Vol. iv. p. 123.

It will be readily conceived, that with such collections of offensive matter in the bowels, great abdominal uneasiness and irritation will be experienced; and frequent efforts will be made to procure relief by stool. These efforts, though generally productive of liquid discharges, are attended with much straining; and, as they are ineffectual in removing the offending cause, are not followed by entire relief. By this circumstance alone the complaint may be distinguished from diarrhœa, in which the pain always ceases for a time after the discharge. When the mass is situated in the colon, it sometimes happens that the symptoms of enteritis make their appearance; as tension of the abdomen, and great soreness upon pressure, attended with considerable febrile excitement. When the rectum is the seat of obstruction, the irritation occasioned by the pressure of the fæces is often extended to the bladder, and disease of this organ may be suspected as the sole cause of the symptoms. The same remark is applicable to the uterine system. In these cases, examination by the finger in the rectum will sometimes detect the real seat of disease; and the impossibility of throwing up injections, or their immediate return after they have been introduced into the bowel, affords additional evidence of the existence of obstruction.

The nature of the complaint having been ascertained, the treatment is exceedingly simple. Purgatives, assisted by injections, are the remedies chiefly to be relied on. I generally employ castor oil, or senna and salts, or jalap and cream of tartar. It is not sufficient to procure a few passages only: the cathartic should be repeated frequently till hardened fæces cease to be discharged; and the quantity of dark-coloured offensive matter which thus comes away, is sometimes so great as almost to exceed belief.

When the feculent mass occupies the rectum, mechanical means, as the use of the finger or the handle of a spoon, may be brought in aid of the cathartic. The warm bath also will be occasionally found highly useful, by inducing relaxation; and general and local bleeding, with blisters to the abdomen, become necessary, when symptoms of enteritis conjoin themselves with the constipation.

After the obstruction has been removed, its return should be obviated by the use of a laxative diet, assisted, if necessary, by an occasional resort to the milder cathartics.

One of the first cases which fell under my notice, was that of a lady of this city. Some weeks after parturition, she was attacked with severe pain, and much general uneasiness in her abdomen, attended with frequent discharges from her bowels. When I first saw her, she told me that she was labouring under a "putrid lax," a name she was induced to give to the complaint, in consequence of the extreme fetor of the evacuations. She was taking opium, port wine, and bark, with the view of strengthening her system, and checking the discharge. Finding, upon inquiry, that she had been affected in this way for a long time, that her suffering was almost continual, and that not even temporary relief was afforded by the evacuations, I at once suspected the existence of hardened fæces in the bowels. The course of treatment she was before pursuing was immediately changed, and cathartic substituted for astringent medicine. By the free and repeated use of castor oil, which was happily well retained by the stomach, the bowels were thoroughly evacuated, and large quantities of feculent matter brought away, to the indescribable relief of the patient. She told me she suspected that the mass had remained in her intestines for five weeks; and that when it was discharged, the first stools were so exceedingly offensive, as almost to make her faint.

About the same time I was called to a little girl, in the family of a gentleman of Southwark, affected in a similar manner. She appeared to be labouring under diarrhœa; but no relief resulted from the evacuations; the pain and irritation were constant, considerable fever was present, and the symptoms of enteritis occurred during the course of the complaint. From these circumstances, suspecting the existence of feculent accumulations, I prescribed cathartics and injections, which were very freely administered. To overcome the inflammatory symptoms, several bleedings were necessary: a blister was also applied over the abdomen, and the warm bath employed. Her bowels at length yielded to the combined influence of these remedies; and large quantities of hardened fæces were discharged. After this she rapidly recovered.

I have known the complaint to occur in very young children. Not many years ago, I had under my care a little boy, the son of a highly respectable merchant of this city, who complained of great distress in his bowels, strained very much at stool, and, together with other liquid evacuation, passed a little blood. As the irritation was maintained notwithstanding the discharges, there was reason to suspect obstruction in the bowels; and the suspicion was confirmed by the fact, that every effort to administer injections was rendered abortive by some impediment in the rectum. Thinking that the obstruction might be owing to hardened feces, I passed my finger into the rectum, and found that such was really the case. By means of the finger, and the handle of a dessert spoon, I succeeded in breaking down the mass, and bringing most of it away. The patient was afterwards entirely relieved by purgatives. In this case I attributed the constipation to a diet almost exclusively of cow's milk. Another instance soon afterwards occurred to me, of a precisely similar character: the previous diet had been the same, and the symptoms yielded to the same treatment. In both instances, the mass which had occupied the rectum, was found, when discharged, to consist of white indurated balls, bearing a close resemblance to soft white chalk. After the discharge of this matter, the patients were put upon a laxative diet, consisting of mush and molasses, with animal broths, to the entire exclusion of milk. In one of the cases, there was no return of the complaint; in the other, owing to the resumption of the former diet, there was a second attack, which, however, soon yielded to the usual measures. I have since seen several cases of constipation, with similar symptoms, originating in the same cause.

It occasionally happens that masses of indurated fæces are retained in the rectum, without producing any serious consequences. An old gentleman once applied to me, on account of the constipated state of his bowels: he had experienced no great injury to his health; but his complaint was inconvenient, and he was naturally desirous of its removal: I prescribed cathartics, but there seemed to be some impediment, which resisted the attempts at evacuation. I explained to him what I believed to be the nature of his case; and with his own finger he broke down the mass, and relieved himself of the inconvenience. Cases of a similar nature have since frequently occurred to me, generally among old people.

There is one condition of things which may possibly be mistaken for the deceptive constipation, of which I have been treating; I allude to those excoriations about the anus, which sometimes occur in diarrhœa. The skin in this part is exceedingly tender; and if deprived of the cuticle, and irritated by the contact of the alvine discharges, produces, in some instances, the most excruciating pain. The patient, after every evacuation, even though it may be free and copious, remains a long time on the close stool, straining excessively, and experiencing a degree of distress which is hardly conceivable by those who have not felt or witnessed it. I have known a gentleman affected with the complaint, to scream out with the violence of the pain. Much alarm is experienced by the patient and his friends; and the practitioner should be on his guard not to mistake the affection for something more serious: nothing more is requisite to obtain relief, than to anoint the parts with lard mixed with laudanum, and to apply a soft poultice, to which laudanum may be added.

Before closing the paper I wish to observe, that all the symptoms above mentioned as dependent upon these collections of hardened fæces, may be produced by a stricture of the rectum. Hence, in the treatment, it becomes important, if relief is not soon obtained by cathartics, to make an examination of the part, and ascertain whether such a cause of the complaint may not exist. The following case will serve to illustrate this position.

The subject of the complaint was a middle aged gentleman of this city. He had for many months been subject to sudden attacks of violent pain in the abdomen, resembling that of flatulent colic. He came at length under my care, in consequence of the pain being almost continual, impairing his general health, completely unfitting him for business, and confining him to the house, chiefly indeed to his bed. I found, upon inquiry, that though his evacuations were frequent, he passed no solid fæces, and obtained no relief after the discharge. By these symptoms, taken in connexion with the general history of the complaint, I was led to suspect some mechanical obstruction in the bowels. As cathartics produced no favourable effect, I made an examination of the rectum, and discovered a stricture, with some induration of the adjacent parts. Having previously extracted from the patient a scirrhous tumour, I had some apprehension that the disease of the rectum might prove of a similar character. Dr. Physick, however, who attended in consultation, agreed with me in the propriety of employing the bougie. The instrument was accordingly introduced, and considerable relief was immediately procured by the passage of flatus. The operation being repeated twice a day, with a gradual enlargement of the bougie, in the course of a few days the stricture was so far opened as to permit the discharge of solid fæces. By a steady perseverance in the same plan, the obstruction was entirely overcome; and large masses of indurated matter came away, which there was reason to believe had been several months lodged in the bowels. The cause of the disease being removed, the patient was speedily restored to ease and comfort; and has now regained a degree of health, which enables him to pursue his accustomed avocations without inconvenience.

Article IX.—*A Case of Osteo-Sarcoma, described by* Henry Bond, M. D., Philadelphia.

The following case of Osteo-sarcoma, which came under my notice a few years since, occurred in a patient of my venerable and respected friend Dr. Green of Concord, New Hampshire.

Mr. B. K., jun., aged forty-seven years, was hardy, muscular, and vigorous, and accustomed from youth to brave more toils and inclemencies than most men are capable of sustaining. He was a hatter by trade, but much devoted to agriculture. Early in March, 1818, he began to complain of pain in his right hip, thigh, and leg. It was so severe, and attended with so much lameness, that he could not move about on his feet. He either went on horseback, or in a gig. At this time, he rode to a distance of more than twelve miles on horseback. He did not confine himself to the house, or ask any regular medical attendance, until the last of April. Previously to this, he asked the advice of such physicians as he casually met, but seldom, if ever, complied fully with their directions. After he was unable to walk, he would sometimes cause himself to be carried, on a chair, into his garden or fields to superintend his labourers. During this period, he often passed very restless and painful nights. About the end of April, he was attacked with a most excruciating pain through the hip. It came on in paroxysms, and as suddenly as an electric shock, attended with a spasmodic action of the muscles of the thigh, particularly those on the anterior and inner part of it. These paroxysms would sometimes last only a very few minutes; at others an hour or more, and were usually brought on by some slight motion in the part. In the intervals between the paroxysms, he was very far from being easy or free from pain. There was but little swelling about the hip in the early part of May. He did not always refer the pain to the same spot, but in the early stage of the disease, it was chiefly referred to a spot immediately behind the great trochanter. A great deal of pain was referred to the thigh and especially to the knee. The symptoms were becoming every day more aggravated until the end of May, when he became incapable of lying in bed. He made repeated attempts, but the pain was so much aggravated that he could not endure it. During the whole of June and most of July, he sat in a chair leaning forward upon pillows on a table, neither laying down on a bed, nor leaning back in a chair, in such extreme distress, that he often passed successive nights without any sleep; sometimes not sleeping two hours in a week. While he was obliged to remain in this sitting position, his legs, particularly the right, became very much swollen; sometimes a most distressing pain extended down to the foot. The pulse at no time indicated great excitement. The appetite was variable, but generally very poor. In June there began to be a hard ridge across the groin. Early in July, it was of the size of a man's finger laid into it; possessed very little sensibility, was red and of almost a scirrhous hardness; and supposed by the attendants to be a swelling and induration of the inguinal glands. Sometimes there was severe pain in the right testicle, and the scrotum became much swollen. Several weeks before his death, the whole hip became considerably enlarged. This swelling was confined almost entirely to the diseased side. Its limits were very distinct, and it resembled very much an erysipelatous inflammation, particularly that part that extended from the groin upon the abdomen, and as far forwards as the linea alba. It extended over the whole hip and some distance up the back. The tumour in the groin continued to become larger and more prominent. In August, it did not retain so much the shape of a ridge, being rather conical and not all times equally prominent. It was hard, but yielded so much to pressure, that it was thought by an eminent surgeon, who was called in consultation early in August, that there would be a considerable discharge of matter if it were opened. Within ten days previous to this consultation, the patient had at three or four times discharged purulent matter in small quantity *per anum*. At this consultation he was examined *in ano*, and an extensive tumour was discovered in the right side of the pelvis, which extended beyond the reach of the finger, occupied half of the pelvis, and the examination of which gave great pain. The growth of the tumour in the groin was variable, but it continued to become more prominent. Towards the close of the disease, the bowels became tender, painful, flatulent, and costive. He lingered out a life of the utmost wretchedness until the 3rd of October, the symptoms becoming more complicated and confused and not less distressing. He took very little food for several weeks before his death, and became very much emaciated. It would be useless to detail the treatment, as it probably did little or no good except to palliate the symptoms. He was visited by a considerable number of physicians residing in the vicinity, and some of the most eminent surgeons in New England were consulted. In spite of all the remedies which learning and experience could suggest, he continued for several months such a distressed object as physicians are seldom called to witness.

On the 23rd of August, I was requested by Dr. Green to open the tumour in the groin. It had become very prominent, and was thought to exhibit very evident signs of fluctuation. No artery could be felt passing over or through it, and it was thought it might be done with safety. It was hoped that the discharge would mitigate some of the distressing symptoms. I made an incision into the prominent part of the tumour, which was about half way between the pubis and the spinous process of the ilium, perhaps a little nearest to this last. The opening was made about half an inch deep, and large enough to admit my finger. Nothing flowed out except a little bloody water. I then introduced my finger, which did not pass in so easily as into a sac of water or pus, but without any considerable force I carried my finger in its whole length, and found a mass of disease, to which I could discover no bounds. A considerable quantity of bloody water oozed from the wound, but no pus. I could, without difficulty, break up this mass whenever I could reach it. I worked out some pieces, which seemed a compound of osseous, cartilaginous, gelatinous, bloody, and slightly purulent matter. The tumour did not diminish after being opened, but was quite as prominent when the patient died as at any time, and the edges of the wound were everted. It continued to discharge, until he died, a bloody watery fluid, which became more and more fetid by its continuance. He died in the afternoon of October 3rd, and the next morning the body was *examined.*

Before making any incision, we could perceive, by pressing on the great trochanter and costa of the ilium, that the bones of the right side of the pelvis were destroyed, that the hip was much deformed, that the points of bone which could be felt, did not retain their natural relative position, and yielded to slight pressure. I first made a longitudinal incision over the posterior part of the great trochanter, six or eight inches long. The integuments were thin; and as soon as I had cut through them and the fascia, came to an enormous mass of disease. The fascia was tense, and appeared natural, and the mass protruded through the wound, but possessed so much firmness, that it would not flow; but it could easily be broken in pieces with the fingers: it resembled a mass of jelly, of various consistence in different parts, with osseous matter distributed through it, without the least apparent regularity or organization. The whole of the ilium, the whole of the ischium, and the greater part of the pubis, were so disorganized, that they seemed to be lost in the void and formless mass: whatever remains of them were discovered, could be easily comminuted with the fingers, or cut with a knife. A part of the os pubis next the symphisis remained, but not exempt from disease: the costa of the ilium retained its shape and some firmness, but it was broken to pieces and removed without the aid of instruments: there were some remains of the acetabulum; little, however, besides the cartilage, with which the head of the thigh bone retained its proper relative position. The round ligament was diseased and very tender, but not ruptured: but neither the head of the thigh bone, nor the remains of the acetabulum, retained their natural position, in reference to the pelvis; they were crowded in towards the pubis, and the whole limb was rotated outwards, so as to throw the head upwards, (supposing the subject to be supine.) The right transverse processes of some of the lumbar vertebræ were destroyed, but to what extent the spine was affected, was not ascertained precisely. The diseased mass filled the right half of the pelvis, and the right half of the abdomen, an inch above the lower edge of the ribs: the intestines were crowded into the left half of the abdomen: the marks of disease in the pelvis and abdominal viscera diminished from the pelvis upwards. Those in the pelvis exhibited marks of high inflammation of no recent date: the upper portions of the abdominal viscera were not apparently affected: the intestines were contracted and empty. Of all the soft parts of the right side of the pelvis, little or nothing more than the integuments and fasciæ remained with any appearance of their original organization. The thickness of the integuments enveloping this mass of disease, was from one third to two thirds of an inch. The iliac artery and vein (instead of being enveloped in the mass of disease, instead of the tumour in the groin being formed above them, as would have been the case if the original supposition that the glands were enlarged, had been true) were crowded above the tumour, and seemed to run along the integuments, very little deeper than superficial veins; and in opening the tumour in the groin, I ran a very imminent hazard of dividing one, or both of those vessels: they were pressed by the tumour nearer to the pubis than natural; and upon that circumstance depended their safety. The os femoris, as far as it was examined, did not appear to be affected, although its upper end was enveloped in diseased structure, and the origins of all its muscles arising from the pelvis were destroyed.

ARTICLE VII.—*Further observations on the case of John Coyle, who was cured of anchylosis by a surgical operation.* By J. RHEA BARTON, M. D.

IN the April number of this Journal I made known my views, and the treatment of a case of anchylosis at the hip, by the formation of a new joint through the great trochanter, and part of the neck of the thigh bone. That report contained the details of the operation, and of its success down to the 31st of March. At that period the patient had so far recovered as to afford sufficient evidence of the value of the operation without reference to any subsequent improvement which might take place; but according to every reasonable expectation his amendment has been progressive, and he is now in the enjoyment of his limb to an extent worthy of particular record.

On the 19th of May he was discharged from the Pennsylvania Hospital (cured) using only a short cane. His freedom from hospital restraint tempted him to indulge in walking a great distance through the city, which caused him a return of pain, and some inflammation. A few days of rest relieved him, and since that he has suffered no inconvenience. Some time in June I made an unexpected visit to him in the vicinity of the city, and found that he had just before my arrival returned to the farm house with his cane in one hand, and a gun and some game in the other. I mention this incident to show that he not only had endured the fatigue of walking, but had sustained the jar accompanying the explosion of his piece with impunity.

I have recently made an examination of the hip, for the purpose of stating its present, and I suppose permanent, condition. There does not appear to have been any bony encroachment on the joint, but the ligamentous structure seems to have been so much thickened as to restrict by its inelasticity much of the motion of abduction and rotation. Adduction, flexion, and extension appear to be unaffected; but as any imperfection in the various movements is amply supplied by the latitude of motion between the lumbar vertebræ, it requires nice discrimination to detect in walking, any want of free motion at the artificial joint; being able to project the foot in any direction. When he sits down, and the knees are placed on a line with each other, it will be found that the joint is flexed to its utmost, and that the curvature of the lumbar vertebræ contributes then to enable him to assume this position.

The patient declares that he never in exercise ascribes particular weakness to his hip, but that he endures fatigue there as well as in any other part of the body, and that he can walk ten miles without inconvenience.

Experience, founded on the treatment and result of this case, will, I think, induce me on another occasion to confine my patient for a longer time to his bed, in order to allow the newly formed ligaments to be perfected and strengthened. By this means it is probable that the erysipelatous attacks to which Coyle was subjected, may be avoided. That time also may be profitably employed in practising the movement of the joint. Advantage probably would be gained at this period of the case by changing the angle of the limb, and propping it in different positions for a day or two at a time. The eventual flexibility of the joint will, I think, be proportionate to the extent of movement during the curative process.

In contemplating this operation in such cases, the circumstance should not be overlooked in relation to its beneficial results, that it is not merely the loss of motion in a joint which constitutes the evil to be corrected, but it is also the mal-position of the limb. If therefore the operation should be performed, and the surgeon fail to effect the establishment of a new joint, in consequence of the tendency to ossific re-union, the lesion of the bone will enable him to place the limb in that position best suited for convenience and usefulness before consolidation shall again take place. The patient thus, in either event, will be compensated for his suffering—in the one instance by the services of a joint, or in the other by a removal of that distortion, which, in the lower extremity, would compel him to use crutches, or in the upper, deprive him of many of the offices it would be capable of performing in a more favourable position of the limb.

An interesting and encouraging fact bearing upon this subject, will be found in the perusal of Mr. SYME's case* of excision of the head of the humerus, in a carious condition. The glenoid cavity of the scapula was in a sound state, and the end of the humerus formed with it a joint susceptible of various movements by means of its own muscles.

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* See Edinburgh Medical and Surgical Journal.—Vol. XXVI. 1826.

The Periscopes of several of our own, and of the foreign journals, contain a brief notice taken from a German periodical, (*Gerson and Julius' Magazine for July and August*, 1825,) of a joint formed also at the shoulder, by the removal of a spicula of bone projecting from the cavity of an ununited fracture. In this case it is said the muscles performed their respective offices.

ANALYTICAL REVIEWS.

ARTICLE VIII.—*Chimie Organique, appliquée à la Physiologie et à la Médecine, contenant l'Analyse des Substances Animales et Vegetales; par* LEOPOLD GMELIN, *traduit de l'Allemand par* J. INEICHEN, *avec des Notes et des Additions sur diverses parties de la Chimie et de la Physiologie, par* M. VIREY. Paris, 1823.

THERE are few departments of medical science to which the physicians of our country have paid less attention than to medical chemistry and physiological botany. The cultivation of these sciences is so intimately connected with the improvement of medicine, that we may confidently expect it to attract, from day to day, the increasing attention of our countrymen. Some of the most valuable additions to modern pharmacy have been the result of chemical analysis, applied to the separation of the proximate principles of vegetables. The success of these investigations must lead to new researches, that will in all probability produce as great a change in pharmacy as has already been made in chemistry itself. How much would the power of medicine over disease be augmented, if all the active principles of vegetables could be separated in a crystalline form, from the mouldering and putrescent fibre, of which they now share the decay and corruption! How greatly would the comfort of the patient be increased if the nauseous drenches of the old pharmacopæias could be changed for concentrated essences, like quinia and cinchonia!

Since the time of NEWMANN, until recently, but little has been added to our knowledge of the chemical characters of medicinal plants. The experiments which that accurate and industrious chemist performed upon the solubility in alcohol, and water, of almost every article of the materia medica, are still referred to as of the highest authority. The state of science at that time indicated neither the necessity nor the means of more minute research, and NEWMANN accomplished all that could be expected from him. Within a few years several of the European chemists have devoted themselves to these researches, and have opened a path which promises to lead to most important discoveries.

The work before us is a compilation of the facts observed in organic chemistry up to the year 1823, and although in many cases neither the relative nor absolute quantity of the component elements of substances is given, much useful information may be gleaned from its pages.

As the book is not in common use, we think a few pages of our journal will be usefully occupied with a selection of the most interesting analyses which it contains. The work is divided into two parts. In the first, after a short sketch of vegetable and animal physiology, are given the results of the experiments of different chemists upon organized matter. Those relating to the vegetable kingdom are judiciously arranged, according to the botanical system of JUSSIEU; thus illustrating by their external, the chemical affinities of the vegetable tribes. The second part contains an account of all the proximate principles hitherto discovered in the vegetable and animal kingdoms, of their composition, chemical relations, and combinations. We know of no book which contains a greater body of information upon these subjects. In making from it the selection which follows, we have wished both to render a service to the practitioner, and to excite the attention of our countrymen to this branch of pharmaceutical research.

Lichen Islandicus—Green wax 1.6; yellow extractive matter 7; bitter principle 3; uncrystallizable sugar 3.6; gum 3.7; starch 44.6; woody matter, the nature of which approaches to starch, 36.2; a trace of gallic acid, tartar, tartrate, with a little phosphate of lime 1.9; (excess 1.6). (BERZELIUS.)

Smilax Sarsaparilla—the root; acrid bitter resin 2.8; gummy extractive matter 5.5; starch 54.2; woody fibre 27.8; loss 9.7. (CANOBBIO.)

Socotrine Aloes, resin 25; bitter principle of the aloes 74.4; woody fibre 0.6; a trace of gallic acid. (TROMMSDORF.)

Hepatic Aloes—resin 6.25; bitter principle of the aloes 81.25: coagulated albumen 12.5; a trace of gallic acid. (TROMMSDORF.)

Scilla Maritima.—The bulb dried at 100°, contains an acrid volatile substance; scillitine, with a little sugar 35; tannin 24; gum 6; woody fibre, with a little citrate or tartrate of lime 30; loss 5. (Vogel.)

Aristolochia Serpentaria.—The root: volatile oil 0.5; greenish yellow resin 2.85; extractive 1.7; gummy extractive 18.1; woody fibre 62.4; water 14.45. (Bucholz.)

Rheum Palmatum—the root; resin 10; extractive, tannin, and gallic acid, 26; gum 31; woody fibre 16.3; malate of lime 6.5, phosphate of lime 2; water 8.2. (Brande.)

Polygala Senega—the root: resin 7.5; senegine 6.15; sweet extractive matter 26.85; gum, with a little albumen 9.5; woody fibre 46; loss 4. (Gehlen.)

Datura Stramonium—the fresh plant; woody fibre 3.15; gummy extractive matter .58; extractive .6; green fecula .64; albumen .15; resin .12; phosphate of lime and magnesia, and vegetable salts of those bases .23; water 91.53; loss 1.28. (Promnitz.)

Convolvulus Jalapa—the root: resin 10; brown extractive insoluble in alcohol 44; starch 2.5; woody fibre 29; albumen 2.5; loss 2. (Cadet de Gassicourt.)

Callicocca Ipecacuanha—the reddish brown variety: adipocire and volatile oil 2; emetine 14; gum 16; starch 18; woody fibre 48; loss 2. (Pelletier.)

Conium Maculatum—the juice of the fresh leaves; resin .15; extractive 2.73; gum 3.52; albumen .31; green fecula .8; the 92.4 parts which remain are water with acetic acid, sulphate, hydrochlorate, and nitrate of potassa, malate and phosphate of lime, phosphate of magnesia, iron and manganese. (Schrader.)

Memispermum Palmatum—Colombo root; volatile oil a trace; yellow bitter principle 13; gum 9; starch 33; woody fibre 39; animalized matter, soluble in water and insoluble in alcohol. (Planche.)

Bonplandia Trifoliata—bark of the true Angustura; acrid volatile oil .3; hard bitter resin 1.7; soft balsamic resin 1.9; caoutchouc 0.2; bitter principle of the angustura 3.7; gum 5.7; woody fibre 89.1. (Fischer.)

Mimosa—Bombay Catechu: tannin 54.5; sparingly soluble matter 34; gum 6.5; lime, alumina, and sand 5;—*Bengal Catechu*—tannin 48.5; sparingly soluble matter 36.5; gum 8; lime, alumina and sand .7. (Davy.)

Krameria Triandra, the root—tannin 38.3; sweet principle 6.7; mucilage deprived of azote, extracted by warm water 8.3; highly azotized mucilage extracted by cold water 2.5; woody fibre 43.3; loss .9. (Gmelin.)

Ricinus Communis. The seed consists of 23.82 parts in the hundred of pericarp, which contain brown resin, almost insipid, with a little of the bitter principle 1.91; gum 1.91; woody fibre 20. The remaining 76.18 parts contain fixed oil, (which is only acrid when rancid) 46.19; gum 2.4; starch with a little woody fibre 20; albumen .5; water 7.09. (Geiger.)

Croton Cascarilla. The bark—volatile oil 1.6; brown bitter balsamic resin 15.1; gum, with a bitter principle, and a trace of hydrochlorate of potassa 18.7; woody fibre 65.6. (Trommsdorff.)

Benzoin—resin 83.3; matter analogous to balsam of Peru 1.7; aromatic principle soluble in water and alcohol .5; benzoic acid 12.5; woody matter and impurities 2. (Bucholz.)

Myrrh—resin containing a volatile oil 34; gum soluble in water 66; (Pelletier.)

The most important result of these organic analyses is the discovery of those "alcaloid" or electro-positive substances, in which the narcotic virtue of plants appears to reside. Their number is sufficiently great to authorise the belief that an analogous principle exists in most plants possessed of deleterious properties. The method of separating them is simple, and an improvement of the greatest value upon the old processes of obtaining extracts; for instead of a protracted and injurious exposure to a boiling heat, these active principles are now separated and purified, by the aid of reagents and crystallization, without any appreciable injury to their medicinal virtues. Their purity can be tested with perfect accuracy, they are no longer subject to spontaneous decay and decomposition, they neutralize the strongest mineral acids, which, it is very remarkable, form with many of them salts that possess all the virtues of their original combinations in a state of nature.

The sulphate of quinia is the alcaloid salt which has been most extensively used. It has become a regular article of commerce, and large capitals are invested in its manufacture. The facility of administering it, and the certainty of its operation, secure to it a decided advantage over the Peruvian bark, which will probably be superseded altogether as a remedy in intermittents.

With respect to morphia, it may be remarked, that its narcotic power is very disproportionate to that of opium, when we take into view the proportion in which it is contained in the latter. Brande asserts, that he has obtained from opium seven per cent. of morphia, from which we may calculate, that the twelfth part of a grain of acetate of morphia is equivalent to a grain of opium. It is prescribed in doses of from a quarter of a grain to a grain, so that there is reason to suppose that we are still ignorant of that combination in opium which nature has endued with such terrible potency.

Brucia, strychnia, veratria, delphia, daphnia, picrotoxia and daturia, are objects at present more of curiosity and research than of medical usefulness. When we recollect the irregular action and doubtful utility of the plants from which they are obtained, we think it will be long before they gain the confidence of the profession as remedies.

There is one general fact with regard to the composition of these substances, which is worthy of notice. They contain azote, while in respect to the elements, oxygen, hydrogen, and carbon, they recede with most other vegetable stimulants from the proportion in which these exist in the truly nutritious principles of plants.

In the present state of vegetable chemistry, entire dependence cannot be placed upon the results of analysis. So much do the results obtained by chemists of known accuracy differ from each other, that we are often left by them in a state of complete uncertainty. Taking those which appear entitled to confidence, we may observe that the vegetable secretions can be divided into three great classes. The first consists of those truly nutritious substances, which constitute the almost universal food of man—gum, starch, sugar and woody fibre, in which the elements, carbon, hydrogen and oxygen exist, in what may be considered mutually neutralizing and balancing proportions, and which do not possess very decided powers as reagents. The second contains those vegetable acids in which the quantity of oxygen is increased, and of carbon diminished, and which are electro-negative, as regards their chemical action. The third are those vegetable stimulants, oils, resins, and alcaloids, in which the oxygen is decreased, and the carbon increased. They are all electro-positive, and those which exert the most deleterious action upon the animal system contain azote, a principle which places them at a still greater distance from what may be called the middle of the scale.

The following table will exhibit more clearly these views.

	Azote.	Hydr.	Car.	Oxy.	
Hydrocyanic Acid,	51.85	3.70	44.45	——	Henry.
Strychnia,	8.92	6.54	78.22	6.38	Dumas and Pelletier.
Brucia,	7.22	6.52	75.04	11.21	Caventou and do.
Quinia,	8.72	6.15	75.38	9.85	Dumas and do.
Cinchonia,	9.02	6.22	76.97	7.97	do.
Veratria,	5.04	8.54	66.75	19.60	Caventou and do.

	Azote.	Hydr.	Car.	Oxy.	
Morphia,	5.53	7.61	72.02	14.84	Dumas and Pelletier.
Narcotia,	7.21	5.91	68.88	18.	Dumas and do.
Emetine,	4.	7.77	64.57	22.95	do.
Camphor,	.34	10.67	74.38	14.61	Saussure.
Resin,	——	10.72	75.94	13.34	Gay Lussac.
Oil of Turpentine,	——	10.4	82.5	15.2	Houton Labillardiere.
Castor Oil,	——	11.03	74.18	14.79	Saussure.
Olive Oil,	——	13.36	77.21	9.43	Thenard & Gay Lussac.
Benzoic Acid,	——	5.16	67.24	27.60	Dr. Ure.
Gallic do.	——	5.	56.64	38.36	Berzelius.
Woody Fibre,	——	5.69	52.53	41.7	Thenard & Gay Lussac.
Starch,	——	6.77	43.55	49.68	do.
Sugar,	——	6.785	44.2	49.015	Berzelius.
Gum,	——	6.93	42.23	50.84	Gay Lussac & Thenard.
Acetic Acid,	——	6.35	46.83	46.82	Berzelius.
Citric do.	——	3.45	41.38	55.17	do.
Tartaric do.	——	3.81	35.98	60.21	do.
Oxalic do.	——	——	33.33	66	do.

The exceptions to the general rule I have stated are few, and the intelligent reader will perceive in them qualifying circumstances which lessen the anomaly; for instance, the benzoic and gallic acids contain less oxygen than gum, or starch, or sugar, although more than any of the electro-positive substances which precede them. They are, however, the weakest of the vegetable acids, and the former has many analogies to camphor, while the latter approaches to tannin in its affinities. Olive oil, the mildest and most nutritious of the oils, differs essentially from gum, and starch, in its composition, but it possesses cathartic qualities, and may rather be classed with the condimenta of the old systems than with the nutrientia. Hydrocyanic acid forms another remarkable exception to the rule, not in its effects on the animal system, but in its electro-chemical relations. It differs, however, from the alcaloids and resins in containing no oxygen.

In the present state of our knowledge it is difficult to apply the doctrine of definite proportions to these substances. It is probable that they form what may be called secondary and tertiary compounds like the neutral salts; in which the more elementary oxides exist, as proximate elements. If this be the case, it will greatly simplify the expression of their equivalent numbers, and explain how variations, so slight in the ultimate elements, alter so essentially the chemical relations of organic matter.

There is yet another and an interesting speculation connected with this subject, which we will mention. These vegetable principles are not peculiar, each one, to a single plant, or to the same natural family of plants, or even to the vegetable kingdom. Opium exists in the poppy and the lettuce; camphor is formed in the woody trunk and stems of the laurel, in the root of the ginger, and the leaves of many of the labiated plants. The peach, the wild cherry, and the bay tree, alike produce the hydrocyanic acid; veratria is obtained from colchicum, white hellebore and sebadilla; and the balsamic principle of the costliest gums of the east, is found in the urinary secretions of animals.

May we not hope that future research will enable us to detect in our indigenous or naturalized plants, some of those precious products which we now procure from the most distant regions?

The progress of chemical science is daily extending the power of man. Gum and starch, and rags and sawdust, have been transmuted into sugar, and the speculation of ALEXANDER HUMBOLDT, that the immense forests of the north may hereafter be converted into sapid and nutritious substances, can no longer be considered as a wild reverie. The peculiar principle of the almond and the laurel, is a product of animal decomposition: the oxalic acid is obtained from sugar; oil of turpentine can be converted into camphor; the formiate of ammonia into hydrocyanic acid. Is it then an extravagant supposition, that from some of these substances, the magical art of the chemist may hereafter elaborate quinia, and morphia, and strychnia, and thus rival by the efforts of his own ingenuity, the choicest productions of the great laboratory of nature?

ARTICLE IX.—*Hospital Reports. Vol. IV. Dublin*, 1827.

THIS work, published in the month of March of the present year, came to hand before the emission of our July number, as will be seen by reference to the Quarterly Summary, under the head of surgery; but its reception then was of too recent a date to allow of our noticing it so fully as its merits, and the great practical instruction which it contains, entitle it to. We have had opportunities, some years back, of learning from various sources the very respectable standing of the Dublin schools of anatomy and surgery; and the work before us, while it furnishes additional proofs of the correctness of our information, is also evidence of the industry and skill which preside over the department of clinical medicine. We hail this volume with pleasure for another reason, as evincing what may be accomplished by an association of professional men linked together by those best ties of good fellowship; zeal in a common cause, and generous emulation of each other's good deeds.

The volume consists of two parts: the first contains five, the second nineteen articles.

The initial paper is entitled, 'A Report of the Amputation of Portions of the Lower Jaw, performed at STEEVENS' hospital. By JAMES W. CUSACK, A. B. M. D., Vice-president of the Royal College of Surgeons in Ireland, Lecturer on Anatomy and Surgery, &c.'

The author, after adverting to the fact of the animal structure of bone throughout the whole osseous system being liable to become the seat of certain morbid growths, and of their frequently occurring in the maxillary bones, especially in their medullary structure, states the inefficiency and even injurious effects of attempts at their removal, which stop short of complete amputation or excision of the whole of that portion of bone in which the disease had its origin. This operation, although often perhaps impracticable in the superior maxilla, may be performed with more ease and safety, when the disorder is situated in the lower jaw, than could have been at first imagined. While it is admitted that in true cancer commencing in the lips or cheek, and secondarily affecting the bone, there is much uncertainty of relief from the operation, owing to the difficulty of extirpating every germ of the disease; yet a similar objection does not apply in those cases popularly denominated fungous tumours of the maxillary bones. In the latter case, "the disease is more purely local, being primarily confined to the osseous texture, and incapable of contaminating the adjacent soft parts, or of affecting the system through the medium of absorption." We shall, the author justly remarks, more duly appreciate the advantages to be derived from amputation of the inferior maxilla, if we contrast the hideous deformity and cruel sufferings consequent upon the presence of tumours in this situation, with the comfort and safety secured to the patient by the performance of this operation. And we can, from the evidence of our own sight, join in the assertion, that "the loss of even large portions of the lower jaw is in general attended with but little inconvenience, and scarcely any perceptible deformity; while the extirpation of the original seat of disease is the best security against any return of the complaint."

Doctor Cusack,—he will excuse us for not giving into the London affectation of pretended aversion or shame in any man who handles the knife to be called doctor, and his desire to be mistered or knighted;—doctor Cusack, we say, for he is an M. D., gives seven cases in which he practised partial amputation of the lower jaw, and but one of which proved fatal. Of these, four were at the articulation. We here subjoin the history of the first case, which will, we are sure, amply repay our readers for a very attentive perusal of it.

"Case I.—Honora Doyle, ætat. 46, a country woman, of a healthy constitution, was admitted into the hospital, June 21st, 1824. She gave the following account of the commencement and progress of her complaint.—In May 1818, she found it necessary to have the second molar tooth of the left side of the inferior maxillary bone extracted: about six weeks afterwards she received a severe blow on her jaw, exactly over the situation which the tooth had occupied: this injury was not immediately followed by any unpleasant consequences, and was almost forgotten, when in the succeeding September, her attention was excited by the appearance of a small tumour about the size of a hazel nut, which protruded from the vacant alveolar space. The swelling, when first perceived, was firm, elastic to the touch, and almost insensible to pressure. According to her statement, it was unattended, in its incipient state, with any painful sensation; its progress was at first so slow as to be almost imperceptible, but in some weeks the swelling had become visible externally. She then applied for assistance to an apothecary, who pushed a lancet into its centre: this wound produced a profuse hæmorrhage, which was suppressed with difficulty. She subsequently made application to other practitioners, by some of whom incisions were made, which were followed by similar results: she also stated, that, after each incision, the tumour evinced a greater disposition to enlarge. At the expiration of the first year, the tumour had engaged a large portion of the bone, advancing towards the chin, and expanding inwards so as to impede the motions of the tongue, and prevent mastication. Still she was free from pain, and experienced no inconvenience, except what depended on the size and situation of the swelling.

"About this time she again applied to a neighbouring surgeon, who made a very deep incision into the centre of the tumour: this operation was followed by an immediate and rapid extension of the disease. Discouraged by these repeated failures, no further application was made for relief, until the rapidly increasing size of the swelling, which now impeded respiration and deglutition, combined with the distress occasioned by profuse ptyalism and occasional hæmorrhages, induced her to come to town, with the determination of submitting to the performance of any operation that might be proposed.

"When she presented herself at the hospital, I found almost the entire of the left side of the lower jaw involved in the disease; the tumour projected outwards, and caused much deformity, the jaws being separated by a portion which protruded between the teeth, and prevented the closure of the lips. On inspecting the cavity of the mouth, the tumour appeared to consist of three branches, involving the bone in their centre; the first, or outer, formed the prominence which was visible externally; the second, ascending between the upper jaw and cheek, and distorting the countenance, reached as high as the margin of the orbit; the third, filling up the sublingual cavity, elevated the tongue, and pushed it to the opposite side: this portion likewise extended so far backwards as to press on the anterior arch of the palate. The teeth were observed on the surface of the tumour, sunk into its substance, and perfectly moveable. The entire portion of the jaw, included between its angle on the left side, and the last incisor tooth on the right, was more or less affected.

"The situation and extent of the disease will explain the nature of her sufferings. She complained of difficulty of respiration and deglutition, articulated indistinctly, and was unable to take nourishment, except in a liquid state. A continued discharge of saliva, mixed with bloody sanies, streamed over that portion of the tumour which protruded from her lips. Her general health, however, might be considered good;—she had not yet suffered much constitutional disturbance, and preserved a tolerable appetite. Under these circumstances, the rapid increase of the disease threatening soon to put a period to her existence, it was decided in consultation, to attempt the removal of the diseased portion of bone, as the only measure that afforded a prospect of saving the patient's life.

"On Friday, July 7th, I proceeded to the operation, in presence of the surgeons of the hospital, Messrs. CRAMPTON, PEILE, COLLES, and WILMOT. The patient was seated on a chair, her head supported, and inclined to the left side: this position being deemed preferable to the recumbent posture, as best calculated to favour the escape of the blood, and prevent its accumulation in the fauces.

"Standing before the patient, I commenced by making an incision from the commissure of the lips, on the right side, which, passing obliquely downwards and dividing the parts completely through, terminated about half an inch below the base of the jaw; the bone, being thus laid bare, was divided by a small hand-saw through the alveolar process of the right canine tooth, which had been previously extracted. The next incision extended from the lobe of the ear, in the direction of the ramus, to the angle of the jaw; and both were connected by a third, carried parallel to the base. Dissecting up the flap, thus formed, I divided the masseter muscle, which was expanded over the anterior surface of the tumour, and denuded the bone midway between its angle and condyle. A needle, to which the chain saw had been connected, was passed behind the ramus, the point being kept close to the bone; the saw moved with so much ease and freedom, that the patient did not appear sensible of the division of the nerve. I then pressed the tumour downward, to put the soft parts (attached to the bone internally) on the stretch; and concluded the operation by cutting the muscles connected with the base of the jaw, exactly at their point of insertion.

"The hæmorrhage was inconsiderable; the dental, and some branches of the facial artery, were secured by ligatures; dossils of lint were placed in the cavity to give support to the cheek; and the divided parts brought into apposition, and retained by points of interrupted suture. A light dressing was applied, and the entire supported by a bandage and compress.

"The operation was tedious, yet the patient appeared so little exhausted by its duration, or the loss of blood, that she was able immediately after to walk to her bed. She swallowed drink in small quantities, which was conveyed to the base of the tongue by means of a gum elastic tube, attached to the spout of a teapot.

"In the evening (six hours after the operation) her face was flushed, her cheek hot, and slightly swollen; but she suffered no constitutional disturbance, and appeared disposed to sleep.

"Saturday.—She had slept during the preceding night, but was greatly annoyed by a profuse ptyalism, and complained of a feeling of tension in the cheek; in other respects she seemed in a comfortable state. Having removed the bandage and compress, I directed the application of the saturnine lotion, and the administration of a cathartic enema.

"From this date, her recovery proceeded rapidly; when suppuration was established, the dossils of lint were withdrawn through the mouth, and the wound acquired, each successive day, a more favourable appearance. Complete union of the divided soft parts followed, and on the twelfth day she was able to walk about the ward. Her articulation became gradually more distinct; she took every kind of nourishment which did not require mastication; the ptyalism, however, still remained. The natural form of the mouth had been so much altered, first by the protrusion of the tumour, and subsequently by the loss of support from the chin, that she was obliged to afford artificial assistance, by means of a bandage, to the lower lip. This inconvenience diminished daily during her stay in the hospital, and scarcely any deformity was ultimately observable. She sometimes complained of the mobility of the remaining portion of the jaw, which was drawn by the action of the muscles within the line of the upper teeth, so as to require the assistance of her finger to replace it.

"In six weeks after her arrival in town, she returned to the country in good health; and according to the last account which I heard from her, still continues free from any disposition to a recurrence of the disease."

As illustrative of the variety and intensity of constitutional disorder succeeding to the fungous swelling of the lower jaw, and also of the skill and success of the amputation at the articulation, we select the fifth case, that of Mary Passmore.

"Case V.—Mary Passmore, ætat. 24, of a pale and delicate appearance, was admitted into the hospital, May 27, 1825. She stated that she had enjoyed general good health until she attained her nineteenth year; about which period she was seized with a very severe pain in the last molar tooth of the right side of the lower jaw; her sufferings were sufficient to induce her to submit to its removal; the extraction was effected with much difficulty, and was succeeded by so much inflammation, that she was unable to open her mouth for several days. About three weeks afterwards she felt a small tumour in the situation lately occupied by the tooth; it was firm, and resistant to the touch, but not insensible, some uneasiness being complained of after pressure. The progress of the disease was at first slow, the tumour having scarcely attained the size of a walnut at the expiration of three months. In the course of the first year, the swelling acquired just sufficient bulk to become visible externally; its advancement was marked by frequent paroxysms of acute pain, which were occasionally so severe as to deprive the patient of rest. During the second year the swelling continued gradually to extend along the bone towards the chin; the molar teeth, having successively become loose and painful, were removed. In the course of this year the bone snapped across, about the situation of the canine tooth, in the attempt to chew a hard crust; and the pain attendant upon this accident was so excessive as to cause the patient to faint. From her statement it would appear that the fractured extremities became united at the expiration of five weeks; but the union was accompanied with such an extension of the disease as completely to involve the part which had sustained the injury. It is unnecessary to detail minutely the various additions to her sufferings, occasioned by the gradual extension of the disease. During the year previous to her admission, she was so much incommoded by the size and weight of the swelling, that she was compelled to confine herself to her chair. Deglutition, respiration, and articulation, were all more or less impeded; and her health obviously impaired. The uterine secretion was suspended; she lost her appetite; became pale and emaciated, and suffered from occasional attacks of hæmatemesis.

"Previous to admission into the hospital, her general health became so much deranged that she was obliged to confine herself almost entirely to bed. On examination, I found that the tumour had engaged the entire extent of the jaw, from the articulation on the right side to the dens cuspidatus on the left; the principal bulk of the swelling extended itself laterally, inclining outwards and downwards, and distending the soft parts so much that they appeared on the point of giving way: inwards, it occupied the entire sublingual space, passing the median line, and touching the ramus on the opposite side, by which portion the tongue was elevated, and its tip brought into contact with the *velum palati*. The disease had extended to the articulation, and the coronoid process was so much expanded as completely to prevent any motion of the affected side; while the mouth, which was kept permanently open, gave passage to a continued stream of saliva. This tumour evidently differed in structure from those I had previously met with; it was more dense, the surface being smooth, and yielding to the impression of the finger; but its parietes possessed so much elasticity as immediately to resume the same uniformity of aspect, upon withdrawing the pressure. The incisor teeth still remained, and, in consequence of their looseness, occasioned much distress. The general health, as I have before observed, had suffered considerably; but little nourishment could be taken, and that with much difficulty.

"This was evidently a most formidable case; the constitution of the patient was broken down; the tumour extensive; the processes enlarged so as to prevent motion; and the integuments so much distended as to leave ground for apprehension that they would not be able to preserve their vitality after an operation. On the other hand, the solidity of the tumour seemed to afford an assurance of greater facility in separating it from its surrounding connections.—I was supported by the favourable opinions of my professional brethren, and emboldened by previous success.

"On Friday, June 3rd, she submitted to the operation; the preliminary arrangements for which were made in the manner before described. The mental portion of the bone was divided by the chain saw, at the situation of the first molar tooth of the left side. This step of the operation was rendered tedious by the restlessness of the patient; she depressed her head towards the sternum, and offered much resistance to the use of the saw. The transverse incision through the cheek was inclined upwards, in the direction already noticed. A third was made over the articulation, and continued downwards, to unite with the second. The division of the soft parts had been hitherto attended with a profuse hæmorrhage, much exceeding what had been contemplated. The vessels however contracted speedily on being divided, yet the total quantity of blood lost was considerable. After the separation of the cheek, and the complete exposure of the anterior surface of the tumour, the bone was found so immoveably fixed from the expansion of the processes, that I could not venture farther in the dissection without danger of wounding the vessels beneath the base of the jaw. In this dilemma, I divided the tumour about an inch below the articulation, and quickly separated the portion included between the two sections: ample opportunity was thus afforded for clearly ascertaining the nature of the difficulties I had still to encounter. So completely had the coronoid process filled up the infra-zygomatic space, that the detachment of the insertion of the temporal muscle proved both difficult and tedious: after it had been separated, I proceeded to the removal of the condyle. Having fairly exposed the anterior surface of the articulation, I perforated the capsular ligament, and finally completed a tedious and disgusting operation, during which the patient had fainted several times, and rejected the contents of her stomach. The integuments having been replaced, and the wound dressed in the usual manner, she was removed to her ward and placed in bed; when she exhibited but feeble signs of animation, and remained in the same state of exhaustion for several hours. Her countenance was pale, skin cold, and pulse scarcely perceptible. Re-action took place but slowly;—in twenty-four hours after the operation the lip and cheek were still cold; yet from this period little trouble was experienced; a mild inflammatory action succeeded, and in six weeks she was restored to her friends, fat and healthy.

"It was remarkable that in this case the cheek still retained a natural prominence, a newly formed structure appearing to occupy the place of the bone, and scarcely any perceptible deformity resulting from the loss of so large a portion of the lower jaw."

The next case, that of James Mahony, is also full of interest; we omit the account of this patient prior to the operation, which, however, as having been attended with unforeseen difficulties, and as setting in strong relief the coolness and minute anatomical knowledge of the operation, we shall transcribe.

"The position of the patient, and all the preliminary arrangements being disposed exactly as in the preceding cases, I commenced the operation by an incision, which connected the commissure of the lips of the affected side to the nearest point of the newly formed opening in the cheek. A second incision descended along the inner border of the opening: a third was prolonged in the direction of the symphisis, towards the left side, as far as the second molar tooth, which had been previously extracted. I next dissected off the flap thus marked out. The instant the separation of the under lip was completed, a large mass of the tumour, which had been supported and retained by this barrier, burst forth, presenting a congeries of fungous or granular masses, which separated into distinct portions: the sight was so appalling and unexpected, that many present were alarmed for the result: it was, however, too late to recede: I directly applied the chain-saw through the alveolar process, from which the tooth had been removed: I next circumscribed the chasm in the cheek, by two incisions, which were extended outwards, and united over the external side of the tumour; another incision being made in the direction of the condyloid cavity, and prolonged downwards, to the point of union.

"I then proceeded to expose the anterior surfaee of the tumour, when, upon minute examination, it was found that no trace of the right side of the jaw bone existed; the whole having degenerated into a softened structure, separated into distinct portions, by deep fissures. To insulate the entire disease at once, was impossible; I therefore removed the mental portion in the first instance; and, by a little care, was able to accomplish the separation of the entire mass, although broken up into several pieces; in this part of the operation, the cutting edge of the knife was used as little as possible. The salivary glands were completely laid bare, being exposed to view with all the vessels and nerves which lie under the angle and base of the jaw.

"These different parts, with the surrounding structures, were ascertained to be perfectly healthy. The diseased mass rested in a bed of cellular substance, which greatly facilitated its removal. It was a curious fact, that no trace of either of the processes could be observed: indeed, so perfect was the disorganization, that only about one inch of *bone* was obliged to be removed. The quantity of blood lost during the operation was not very considerable, the few vessels that required a ligature being readily secured: the chasm which remained was filled up with lint; the edges of the wound approximated, and retained by points of interrupted suture. After having been placed in bed, the patient was somewhat feeble, and continued weak for several hours; but was in a short time restored by the use of some simple cordials.

"This man's general health improved rapidly; he was soon able to leave his bed; his wounds all quickly healed, with the exception of a small fistulous opening, which continued to discharge saliva from the most depending part of the cicatrix: this opening has, however, since perfectly closed, and he continues to enjoy good health, free from any appearance of a return of the disease."

The case which terminated fatally, was of a healthy female, Catharine Kenney, aged thirty, from whom Dr. Cusack removed the whole of the left side of the lower jaw. Things went on very well until the fifth day after the operation, when erysipelas made its appearance; and on the following day extended over the entire cheek. On the ninth day, her pulse was 126, small and weak; she was perfectly collected, but complained of dyspnœa, with difficulty of deglutition, and also of a pain, which she referred to the ensiform cartilage. From this time she continued to sink gradually in strength, and expired on the following morning."

> "On dissection it was ascertained that the inflammation had extended itself into the cellular texture surrounding the larynx; the cells contained a sero-purulent fluid in small quantities, and the mucous membrane of the glottis was elevated in two small circular points: but the morbid appearances were not as distinct as I have been accustomed to find, when death has followed upon diffused inflammation in this region. The viscera of the thorax and abdomen were healthy. The unfortunate termination of this case caused me much disappointment; yet I was not unprepared for the occurrence of such an accident. Fatal cases of diffused inflammation succeeding to operations in the vicinity of the base of the jaw, are by no means unfrequent. Not many years since, I lost a patient in a similar manner, after the removal of a small diseased gland, connected with cancer of the lip: erysipelas set in the third day, and death took place on the sixth. In this individual, the entire cellular texture surrounding the larynx and pharynx participated in the disease, the same morbid appearance being likewise visible within the thorax, in the course of the trachea and œsophagus."

It would seem, from a quotation made by our author from the new edition of SABATIER'S "Medicine Operatoire," that DUPUYTREN, out of eight or ten cases of amputation of the lower jaw, lost one in a manner very similar to that detailed above.

Dr. CUSACK concludes his paper by "a brief summary of the method employed in the performance of the foregoing operations, and notice of the means taken to avoid some difficulties which had at first caused much embarrassment." The copious extracts which we have already made, preclude our inserting these directions and precautions, which the operating surgeon will do well to consult in the work itself: they may, however, be summed up under the following heads. The removal of all teeth necessary to permit the free division of the bone, on the day previous to the operation: the manner in which the patient is to be seated: the direction of the first or mental incision, according to the situation and extent of the disease: the size of the chain-saw, which is not to be above fifteen inches in length, to effect the division of the bone—more than one should be furnished on the occasion, in case of accident: the course of the next incision, from a little anterior and superior to the lobe of the ear, down to the angle of the jaw, keeping carefully within the line of the bone, then carried in a circular direction, about a quarter of an inch above the base of the jaw, so as to join the first incision: the securing of the facial artery: exposure of the parotid gland, and the section of the masseter muscle, which is expanded over the surface of the tumour; the division of the ramus of the jaw thus laid bare, by means of the chain-saw: the second division of the bone having been effected, the tumour is to be pressed downwards and outwards; and having divided the lining membrane of the mouth, the cellular texture gives way, and the tumour may in great part be detached, without the use of the knife. When it is necessary to extirpate the condyle from the articulation, the attachment of the temporal muscle having been divided, the cut extremity of the ramus is to be seized with a strong pair of forceps, the capsular ligament put upon the stretch and opened: the disengagement of the condyle is effected by a blunt pointed bistoury, carried cautiously round the joint, and dividing the attachment of the external pterygoid muscle.

Dr. Cusack was not, at the time of his performing the operation of amputating the jaw at the articulation, aware that Graafe had done it before him, and of course his merit for originality of view is not the less; while in simplicity of means and success he has superior claims to our esteem. He considers the precaution of tying the external carotid as practised by Graafe, and the main trunk of the vessel as adopted by Dr. Mott, before commencing the operation, as unnecessary, and only adding to its complexity.

The second paper in the Reports, is entitled "*Clinical Observations*," by Robert James Graves, M. D. M. R. I. A. Fellow of the College of Physicians, Lecturer on the Practice of Physic in the Medico-Chirurgical School, Park-street." This contains important cases—the first is "Abscess of the Liver." The subject was a robust man, by trade a glass-blower, in whom, notwithstanding the employment of very active means, the symptoms, four weeks after the subsidence of the first attack,

> "Left no room to doubt the formation of an abscess in the liver. Hectic fever, attended with rigors, night sweats and emaciation, being accompanied by a constant sense of uneasiness and weight in the right hypochondrium, which was evidently enlarged, and harder than natural. It was also tender and painful at first, but after some time the pain became confined almost to one spot, which nearly corresponded with the centre of the external elevation."

Poultices were diligently applied, but although there was a very indistinct feeling of deep seated softness, the abscess showed no disposition to point outwardly. The man's constitution was rapidly giving way, and it therefore became a most important question, whether the abscess in the liver should be opened by an operation. The surgeons of the hospital disapproved of the attempt: but Dr. Graves having seen "several cases where an incision made over a deep-seated abscess had failed from its deep situation to give vent to the matter in the first instance, and yet in the course of a few days the abscess found its way to the incision, and burst through it," was induced to propose in this case an incision about four inches long, exactly over the centre of the tumour in the right hypochondrium, and to be carried through a considerable depth of muscles, and if possible to be continued to within about one or two lines of the peritoneum. His colleague, Mr. M'Namara, performed the operation, but, although the incision was very deep, the situation of the hepatic abscess was not felt more distinctly than before. In two days afterwards, however, the patient sneezed, and purulent matter, in very large quantities, burst forth through the wound, not from the bottom, but from one side, since pressure on the liver caused matter to flow abundantly from that side. "Purulent matter, at first in large, and afterwards in diminished quantities, flowed through the wound for several weeks, and the man perfectly *recovered.*"

In this successful, and to a certain extent, novel practice of Dr. Graves, we recognize an application of John Hunter's views and principles on ulcerative inflammation, in which he points out the tendency of abscesses, however deep-seated, to approach to, and discharge by the external surface, by means of what he calls mixed, or interstitial and progressive absorption. If then we make an incision over an abscess, even though we do not reach it, we bring it nearer to the external surface by the entire depth of the incision: and this we take to be as good an explanation as that offered by Dr. Graves himself, which is "by the removal of pressure, and partly by the inflammation arising from the incision, and which served to form a connexion between it and the abscess."

Rheumatism of the temporal muscles causing inability to open the mouth, is mentioned by Dr. Graves as an

"Affection unattended by any constitutional derangement, but which caused much uneasiness in the minds both of the patients and their friends.

being by them confounded with lock-jaw. A similar error was committed also in a case where the contraction of the muscle arose from inflammation, the consequence of local injury. In rheumatism of the temporal muscles, the pain and tenderness are greatest just above the zygoma. Its cure is easily effected by the application of leeches repeatedly to the affected part, and by the internal use of anti-rheumatic remedies."

This expression of *anti-rheumatic* is much too indefinite for the medical reader. Whether is he to understand by it antimonials, or the compound tincture of guaiacum, purgatives, or the rust of iron?

The case of "*idiopathic glossitis affecting only one half of the tongue*," occurring in a medical student, is interesting, as well from the infrequency of the disease as from its furnishing an example of the circumscription of inflammation, by the condensed cellular tissue forming the median line, which may be traced from the forehead to the pubis. "True idiopathic glossitis is an extremely rare disease. J. P. FRANK only saw one case during his whole life." Dr. GRAVES, while he alludes to four cases of this disease, observed of late years in different parts of Europe, does not seem aware of that one detailed by Dr. HOSACK, in a letter to the late Dr. DORSEY*, and which proved fatal; nor of another, the particulars of which are given in a letter from Dr. M'VICKAR to Dr. HOSACK, and which ended in recovery.† In both instances the attack was brought on by the patient's taking cold. Bleeding was not practised in the first of these, until eight days after the attack, when 14 ounces of blood were taken from the arm: partial relief was obtained by lancing a tumour under the tongue, from which issued a small quantity of very offensive purulent matter on the seventh day of the disease. In the second case the swelling and inflammation of the tongue supervened on a chronic enlargement of this organ, and of the lower jaw, induced two years before, while the person was under a course of mercury for the cure of syphilis. The progress of the acute disease was very rapid, "not exceeding," says Dr. M'VICKAR, "eight or ten hours from the time he first began to perceive it, until he sent for me on account of his difficulty of breathing." The tongue was at this time protruded from the lips upwards of an inch, and so filled up the posterior fauces as greatly to obstruct respiration:

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* Hosack's Medical Essays, Vol. II. p. 181—8. New York.

† Ibid. p. 188—90.

the face was flushed and turgid, and there was much action in his pulse. He was immediately bled to between thirty and forty ounces, deep scarifications were made in his tongue with a scalpel, a blister was applied to the throat, and antimonials and salts were administered with the happiest effect. To the bleeding, scarifications, and antimony, we must, as Dr. M'Vickar very properly thinks, attribute the relief, since it was too sudden to have been at all effected by the blister or cathartic. The tongue was in the course of a few days reduced to its previous size by a continuance of the antiphlogistic plan. We cannot help contrasting these two cases in their treatment and results. The practice of the young house-physician, (Dr. M'Vickar) in the New York hospital, where the latter occurred, was prompt, rational, decisive and successful. The first mentioned patient, the history of whose case is drawn up by Dr. Hosack, was a man of large fortune, and who had summoned to his aid four physicians, the last of whom, Dr. H. was called the day before his dissolution; and yet, if we except the tardy detraction of fourteen ounces of blood on the eighth day of the disease, little else was done; for in such a case we consider blistering and purging, and gargling, and vomiting, and towards the conclusion a decoction of bark and snake root, and nourishment rendered more stimulating by the addition of wine, to say the least of it, a very inefficient practice.

The application of leeches directly to the tongue is much recommended by Dr. Graves, and, as we think, most correctly, if, independent of his experience, we may be allowed to draw on our own, not indeed in glossitis, but in that form of disease, in which, together with a rapid swelling of the parotid gland, there is inflammation of the adjacent cellular tissue, extending to the throat, and seriously impeding respiration, and almost obstructing deglutition. We have witnessed the rapid and alarming progress of the inflammation in such a case, and are well assured that life would have been terminated in a few hours, but for the speedy detraction of blood from the part by means of leeches.

The manner in which Dr. Graves treats colica pictonum, was mentioned in the last number of our journal, in the Therapeutical department of the Quarterly Summary. Dr. G. states, that "a case of paralysis after painter's colic, treated also in the Meath hospital, received great benefit from the use of strychnia, as recommended by **Magendie**."

"*Whitish Stools.*"—Under this head Dr. **Graves** details the case of a gentleman who had been severely attacked last summer by dysentery, then epidemic. The disease was so far removed as to leave him with a good appetite, and tolerable digestion—one or two natural stools daily without tenesmus: but he was becoming daily more emaciated and weak, and

> "Complained of eight or ten sudden calls to stool during the twenty-four hours, attended with an impossibility of resisting the bearing down and weight felt in the rectum, so that the evacuation often followed before he had time to retire to the water closet. These evacuations were preceded by no premonitory sensations, and consisted merely of two or three table spoonfuls of muco-gelatinous matter, which varied in colour and consistence, generally resembling thick milk, or puriform fluid, and occasionally a transparent tremulous jelly."

This disease is properly referred to an irritation, or sub-inflammation of the mucous membrane of the rectum, and our author objects naturally enough to the explanation of the phenomena of white stools, as given by **Cullen**, and retained by **Good**, viz. in making them depend on the chyle, which, in place of being absorbed, passes downwards, and is carried off per anum. Such errors must ever be current so long as the name of the disease is derived from a symptom, an occasional effect, in place of from the altered tissue or organ, the immediate cause. For this reason we could have wished that Dr. **Graves** had substituted another term than white stools, the more so as he points out other varieties of intestinal disorder, in which the discharges are white, as if coloured by lime, absurdly enough called *diarrhœa gypsata*, or gypseous diarrhœa, by **Good**; and he tells us that occasionally

> "A similar state of the mucous membrane lining the small intestines may occur, and give rise to a white secretion from its surface, as proved by examination of their contents, in persons who had died of the East India cholera, in many of whom white milk-like stools had been observed during life. These stools were found on dissection to depend on a secretion from the small intestines. The *diarrhœa alba*, described by **Hillary** as occasionally epidemic in Barbadoes, probably arises from a similar cause."

No remedy was found of any avail, in the above detailed case, in the hands of Dr. **Graves**, until he made use of strychnia, "on the authority of Dr. **Rummel**, who had employed the extract of nux vomica with great advantage in the complaint. One twelfth of a grain of strychnia, given in the form of a pill, twice a day, completed the cure in about three weeks." From the well known power of the balsam copaiva in chronic irritation of mucous surfaces, we should for ourselves be inclined to make use of it in the above disease, with an expectation of unquestionable relief ensuing therefrom.

"*Black, or very dark stools.*"—Until the time of Hoffman, the only two recognized causes of this appearance were, effusion of blood into the intestines, causing true melæna, and black bile. To these, physicians at all conversant with pathology have very generally consented to add a third, viz. a vitiated secretion from the mucous surface of the alimentary canal. To the American practitioner, this is a subject of peculiar interest, connected as it is with his opinions and *methodus medendi* founded thereon, in yellow and bilious fevers, in the former of which we on this side of the Atlantic were the first to point out the true nature of the black vomit. It has been shown to be a morbid secretion, or discharge from the mucous coat of the stomach, and not atrabilis, or even blood; for however black, or even floculent, bile taken from the gall bladder may be when first put in water, a part will immediately mix, and colour this latter fluid; and the more granulated portion will, by a little pressure between the fingers, furnish a rich yellow, or gamboge colour; a change this, which cannot be brought about with the coffee ground ejections in yellow fever; nor will the water be tinged red, as occurs in true melæna, notwithstanding the blood may have been retained for a considerable time in the intestines. Of the precise cause and nature of the dark tar-like stools in bilious fever, we are not so well informed: though resembling so much, in hue and appearance, the inspissated bile of the gall bladder as to lead to a belief of their deriving their qualities from this latter fluid, yet when we reflect, that prior to these fœcal discharges being brought about, those immediately preceding them often do not display a want of bile, nor any particular vitiation of it, we become inclined to the opinion of such black stools being the consequence, and in a great measure the direct product, of a morbid secretion from the small intestines, especially the duodenum. As the fever advances and attains its second stage, most unhappily called typhoid, this tendency of the alimentary mucous surface to secrete dark matter is increased, as we see by the incrustations on the tongue, lips, gums and fauces; and after death, in the large intestines.

The effects of a discharge of black matter, or the associated symptoms and state of the patient, are very different, in the three forms of disease above designated, viz. yellow fever, bilious fever, and true melæna. In the first of these, the ejection from the stomach of dark coffee ground matter, or black vomit, is a symptom of the most alarming, and usually fatal nature: in the second, the discharge is speedily followed by an ameliorated condition of the fever, as indicated by moisture on the skin, diminished thirst, and a desire to sleep; and affords one of the best justifications of the purgative plan so much insisted on by our medical brethren in this country, and so often carried by them *à l'outrance.* In the third case, again, where there is really an effusion of blood, the evacuations, when copious, are followed by great debility and frequent fainting. In the chronic forms of disease, to which Dr. Graves more particularly alludes, and to which Mr. Abernethy has directed the attention of the profession, the black colour was evidently derived from the intestinal mucous membrane. In a very remarkable case which Dr. G. had under his care, "very great quantities of matter, sometimes of the consistence and colour of tar, and sometimes resembling ink, were passed by stool for ten or twelve days in succession." As regards treatment, he assures us "that mercury had no effect on the appearance of the stools, nor was there any symptom of hepatic disease; but a temporary improvement in their appearance always followed the internal use of stimulants, such as spirits of turpentine; and the case finally yielded to the use of this and other stimulating tonic remedies." Here again we have to express our regret that Dr. Graves speaks merely of a leading symptom, and of the remedies which he made use of to combat it, without his apprizing us of the particular condition of his patient—whether the circulation was slow and feeble, or hurried and active—the skin hot and dry, or cold, or soft and moist—of a natural hue, or discoloured—considerations these, indispensable to our forming any conclusions as to the propriety of using certain remedies, recommended by others, or making trial of new ones for ourselves. Without such minuteness of specification, therapeutics degenerates into mere conjecture, and the experience of the present fails as a guide for the future. In clinical medicine, we have a right to exact the most rigid adherence to the laws of evidence, and clearness of narrative: the physician must be a faithful chronicler, before he is at liberty to aim at becoming a lucid historian; nor can we give our assent to his inferences, whether he calls them his opinions or his experience, unless he furnishes us with the facts from which they are said to be drawn. In the case stated by Dr. Graves, we only learn incidentally, what was the appearance of the tongue: it is indeed alluded to most appositely to the pathology of the disease; but we were entitled to its presence under the clinical head. He reasons in the following manner:

> "That the great quantity of black matter passed by stool was owing to an increased and vitiated secretion from the intestinal mucous membrane, was proved by the following experiment: I cleaned one half of the tongue, from which I washed, with much difficulty, the black tenacious mucus: I watched it for several hours, and found that the part I had cleaned became gradually black and foul; the black mucus being evidently a secretion from its surface. Analogous to this case is one which was formerly under the care of Mr. Wilmot, and in which large quantities of blackish mucus were discharged *from the bladder.*"

Secretions or discharges of black matter do not come from the mucous surface alone, they have been seen from the skin and the serous surface, as in the peritoneal cavity.*

Contagious Psoriasis. Scaly Tetter.—The opinion of Bateman and Duffin, that scaly eruptions are not contagious, is contested by Dr. Graves, who gives cases which go to show that such diseases may become communicable by contact, under certain circumstances.

Swelling of the Extremities.—Dr. Graves seems determined on giving the plainest names to the diseases of which he treats: the disadvantage to the medical reader is, that the name taken from a prominent symptom, conveys to him no idea of the nature or peculiarity of the malady. The two species which Dr. G. describes, are, he thinks, pathologically different from either of those acknowledged by nosologists. These latter are *phlegmasia dolens* and *elephantiasis*, or *bucnemia tropica* of Dr. Good. Of the first additional species noticed by our author, he has seen but one case: the patient was a young man, 25 years of age, and otherwise healthy: he was admitted into the Meath hospital, on account of an extraordinary enlargement of the left lower extremity. "The limb," which is represented by a plate in the work under review,

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* See Vol. 2. Art. IV. of this Journal, in which the late Dr. Monges adduces instances of this nature.

"Measured round the thickest part below the knee, two feet nine inches in circumference, or about the same size as the body. The swelling felt firm to the touch, and extended nearly half way up the thigh, where it rapidly diminished; and at this part, the integuments felt loose and flabby: the upper part of the thigh was not increased in size: on the foot, the swelling was exactly similar to that described by CHEVALIER; and overhung the toes, 'so *that all except the great toe were imbedded in it.*' Some parts of the skin, particularly in front of the tibia, and on the instep, were covered with hard concretions, arising from an occasional oozing of fluid from slight fissures, which fluid afterwards dried and formed a sort of scab; and being mixed with the furfuraceous scales of the thickened and desquamating cuticle, these scales might have been confounded with true tubercles: except in these parts, the cuticle did not appear very rugged, or much thicker than natural.

"Towards the bottom of the deep fissures which divided the swelling into lobes, the cuticle was very thin, and the skin reddish, and constantly moistened with a fluid secretion. The swelling had commenced many years before his admission into the hospital, and had attained its enormous size gradually, and without the least pain or inflammation of the skin, the subjacent adipose tissue, or the inguinal glands. Both the knee and ancle joint retained their flexibility; he could walk and run, and until an extensive excoriation took place on the back of the leg, the disease had not prevented him from earning his bread by daily labour.

"His virility was unimpaired. Great quantities of fluid were discharged from the excoriated surface of the skin, and rendered the neighbouring parts tender and sodden. The toe nails were natural, and there was no tumefaction of any of the toes; their skin was also natural. The bottom of the swelling formed with the sole of the foot, a continuous flat surface, fully six inches in breadth, and covered with a thickened, but not diseased skin, so that he could support the weight of his body on that leg, steadily, without pain.

"From the perfect manner in which the muscles of this limb performed their proper motions, it is extremely probable that in this, as in CHEVALIER's case, "they preserved their natural relative situations with respect to the bone, and to each other, the disease not having at all extended into the interstices between them." I have no doubt, also, that as in CHEVALIER's case, the tumefaction arose from an extraordinary growth of the skin and subjacent adipose (and cellular') tissue."

HILLARY tells us that he discovered on dissection that the muscles and bones of the limb in Barbadoes leg were exempt from alteration or morbid growth. This fact, together with the general physiognomy of the latter disease, and the preservation of the size and shape of the foot, &c. would lead us to doubt the correctness of Dr. GRAVES's view, who considers the disease as above detailed specifically different from that described by HILLARY. One alleged difference is not admitted by Dr. G. himself, viz. the swelling in the Barbadoes or elephant leg being preceded by a swelling of the inguinal glands; and he naturally infers that the inflammation of the lymphatics, and of the skin and other parts of the leg, arises from the same cause. In common with Dr. GOOD, he warns the physician against confounding, as writers often do, the *elephantiasis*, or the *elephant leg* of the Arabians, Barbadoes leg of late writers, with elephantiasis or elephant skin of the Greeks.

The *second species* of enlargement, observed by Dr. GRAVES, "may occur in either the superior or inferior extremities. It is, perhaps, more frequent in the former, and often obtains such a magnitude as to render the limb useless for the purposes of manual labour." It is most common, if not entirely restricted to the poor, and on the authority of Mr. EVANSON, "prevails very generally in a particular spot or place, many in the neighbourhood being affected, and sometimes many in the same family."

The swelling is preceded by febrile symptoms, more or less severe, and usually attended with marked gastric derangement. In a day or two the back of the hand and wrist (if it be an upper extremity which is attacked) become somewhat swollen, and considerably hotter than natural. The skin becomes red, and exhibits irregularly confluent and slightly elevated patches, some with an erysipelatous appearance; but in all instances disappearing on pressure, and attended with heat, itching, or slight pain. Vesications are never formed, and suppuration occurred but in one case. After the lapse of three to eight days, the disease disappears, but usually returns in the course of four or five weeks, and runs precisely the same course, except that the œdema remains longer; and when the malady has recurred five or six times, the œdema becomes permanent, being augmented by each attack, and decreasing during the intervals. In general the constitutional disturbance is diminished as the local complaint becomes more marked, and there have been cases in which the local exacerbations came on without any perceptible disturbance of the system. In the course of a year or more the hand is swelled to two or three times its natural size, the enlargement taking place chiefly at the back: the skin becomes thickened, corrugated and chapped, and even opened into fissures. The wrist and fore-arm are so much increased in size, that the hand cannot be closed, and it of course becomes nearly useless. When the leg is attacked, the swelling proceeds more rapidly, and spreads over the whole limb, which acquires in consequence a very great size.

An examination of several preparations in the museum of the college of surgeons, enabled Dr. Graves to see the change of structure induced by the above disease.

> "The cuticle in all was in many parts thickened, scaly, and rugous, and here and there had the appearance of a hard warty surface. The corium was thickened in some parts enormously, even to the extent of three quarters of an inch; the papillæ were enlarged, vascular, and elongated, and the sub-cutaneous cellular membrane was much increased in depth, and condensed in structure, containing a large quantity of granular fat like matter. The muscles were slender, but otherwise natural, so that the increased size of the limb evidently arose from the alterations which had taken place in the skin and sub-cutaneous cellular tissue, in consequence of the frequent depositions and increase of substance in these parts, after each accession of the inflammation."

As regards the pathology of the disease, Dr. Graves thinks that the fever, from its appearing before the local inflammation, is the cause of the latter: and that as it occasionally prevails in persons free from all gastric disorder, we must look for its cause elsewhere than to the state of the stomach and bowels. Swayed by the prevailing creed of the medical schools, which cannot admit of any other origin of a periodical febrile disease than marsh miasmata, he thinks that, in consequence of the greater prevalence of the pyrexia which accompanies this complaint in spring and autumn, it may partake somewhat of an aguish nature. Passing from the hypothetical to the experimental, he makes his treatment of the disease to consist, during the earlier stages, of antiphlogistic measures and purgatives, and the application of leeches repeatedly to the inflamed parts, cold lotions, lead washes, &c. During the intermissions he recommends rest of the affected extremity, moderately tight bandages, and bark, or still better, FOWLER's arsenical solution. Change of air should always be recommended, and *the antiphlogistic plan at once resumed the moment the inflammatory paroxysms recur.* The diminution of the œdema will be proportioned to the subjection of the local inflammation during the paroxysm. Adhesive straps, though a convenient means of making pressure on the limb, are reprobated as productive of irritation, and invariably aggravating the inflammation.

Persistence in the plan of treatment is essential, as the disease is of a most obstinate character.

The third paper in the collection is entitled "*A Selection of Cases from the medical wards of the Meath Hospital, and County of Dublin Infirmary.* By R. J. GRAVES, M. D. and WILLIAM STOKES, M. D. physicians to that Institution;" the object of which is to prove the utility of the STETHOSCOPE in the diagnosis and treatment of thoracic diseases.

Polypharmacy, and heroical remedies, as we are pleased to term them, have too long occupied the attention of American practitioners, to the exclusion, or at least the very imperfect study of diagnosis and prognosis, or symptomatology and semeiotics. Like the gallant but stupid officer, who, at the risk of discomfiture or total defeat, prefers storming to turning an enemy's position, our physicians, without much inquiry, begin to combat the more prominent symptom, and rely on the noble daring in the use of the lancet and calomel, or perhaps opium, to revolutionize, or, as a celebrated medical teacher used to express it, to plumb the system, when a little more attentive observation of all the symptoms, and a little more pains to detect the location of the malady, would have led them to the safer, and, in innumerable occasions, more successful practice of applying cups or leeches, or a blister, or keeping a running sore by an issue, to the great relief of the poor stomach and head, which are exceedingly distressed by our heroicals. We make these remarks with certain reservations, and we are well aware that several notable examples of physicians, free from the force of our strictures, might be pointed out, both in this city and elsewhere. But still we believe we are safe in the averment, that with looking at the tongue and feeling the pulse of his patients, ends for the most part the examiination of the medical attendant, while the physiognomy and posture of the sick person, the effects of pressure by the hand on the various regions of his abdomen, and percussion and auscultation mediate and immediate as applied to the chest, are most generally overlooked or performed at random, and by accident. What a host of prescribers there are for diseases of the uterine organs, who never even think of aiding their knowledge of the state of these parts by the touch. And how many are dosed and purged without mercy, that is, without salutary effect, for disorders growing out of, or kept up by indolent hæmorrhoidal tumours, strictured rectum, or enlarged prostate, when a simple inspection or examination of those parts would have pointed out a very different and infinitely more efficient mode of practice? Surgeons must have too often witnessed permanently diseased function of the kidneys brought on by the prolonged use of diuretics, prescribed by the ignorant practitioner with the view of relieving the dysuria produced by a stricture of the urethra, not to be aware of the imperative necessity of a knowledge of the use of the catheter and bougie. Physicians, we may hope, will, in like manner, from experience of the inefficacy and injurious tendency of many remedies and modes of practice directed to the system at large for the cure of a circumscribed inflammation or effusion in the lungs, become sensible of the propriety of using the stethoscope in the diseases of those parts, to enable them not only to determine the nature, but the location of the engorged or disorganized tissues. Many years have now elapsed since the publication of LAENNEC's work on Auscultation, and the use of the stethoscope in the French hospitals, and yet, although the evidence of the very great utility of this simple instrument is most conclusive and irrefragable, its use among us on this side the Atlantic, we fear we may add in Great Britain also, is extremely limited. We are not aware of any American publication on the subject except a very excellent inaugural dissertation by EDMUND STRUDWICK, of North Carolina, entitled, "Remarks on the Stethoscope, in relation to Phthisis Pulmonalis," published in the eighth volume of Dr. CHAPMAN's Philadelphia Medical and Physical Journal, and to which we have pleasure in referring our readers, promising at the same time to place before them in succeeding numbers of our own journal, a full and connected exposition of the value of auscultation, both immediate, as when the ear is directly applied to the chest of the patient, and mediate, as when the stethoscope is employed. We occasionally hear most singular objections to the use of this instrument, all of which finally resolve themselves into the two following:—the difficulty of hearing and distinguishing the different kinds of sounds in diseased lungs and heart; and the uncertainty of the diagnosis drawn from the knowledge of such sounds when obtained. To this we would briefly reply by alleging that the study of symptomatology, in all its branches, and even in its most trivial details, is an affair of time and labour, not grasped at intuitively, but mastered by frequent trials and much experience. It is by no means an easy task for the medical observer to acquire a sight so practised as to enable him to distinguish the various shades of colour of the tongue and skin, or a touch so erudite as to convey to his mind the variety of impressions corresponding with the numerous states and changes of the pulse; and yet we should, no doubt, express our amazement if we were to hear any physician discouraging a student from the study of the symptoms derived from the states of the tongue, skin and pulse, by alleging the difficulties and occasional fallacies attending the exercise of the senses of sight and touch. Why then shall we object to turning to account our sense of hearing, and making it also subservient to the grand purpose of apprizing the mind of the changes going on in organized living matter, the better to enable us to draw the necessary conclusions, and devise suitable means to check or remove the evil deplored?

We now proceed to a notice of the cases recorded by Drs. Graves and Stokes.

The first is of James Conner, aged thirty-three, admitted into the hospital, September 13, 1825, labouring under dysentery of about a month's standing, marked by bloody stools, tenesmus and prolapsus ani. Calomel and opium administered during a week salivated him with some relief; and small doses of turpentine cured the dysentery, which was, however, succeeded early in October, by a swelling of the extremities. The anasarca was removed by small doses of colchicum, and the patient appeared in a fair way of recovery, until the 13th, when he suffered much orthopnœa during the night, and stated, that for the last three nights he had no expectoration. The suspicion of pneumonia was diminished as our authors thought by the appearance of the symptoms so immediately after the removal of the external dropsical swelling, in a debilitated constitution, and it was agreed that the pectoral uneasiness might be accounted for on the supposition of hydrothorax. The diagnosis between the pneumonia and hydrothorax was deemed of great practical importance, and this was at once afforded by the stethoscope. The patient was found to lie on his left side: "here the crepitating rale was heard above the left mamma; the respiratory murmur beneath was inaudible; pulse 105. Diagnosis. *Inflammation of the lower part of the left lung*. Fiat. venesect. ad ℥xiv."

Here we would beg leave to make a few comments on the first part of the case. The narrators of it say not a word about the appearance of the tongue, or the heat, or tenderness, or the absence of these feelings, of the abdomen, during the dysenteric period, nor of the pulse during the same time; nor do they speak of either tongue or pulse throughout, until they had determined to bleed, and then we have the number of beats given without any allusion to the other conditions of the arterial system. We deem this case no unapt or unfrequent instance of the manner of treating a malady by merely obviating the most troublesome symptoms, and hunting the disease from organ to organ, in place of embracing, in one view, all the symptoms, and inquiring into the state of the system, or of the particular tissues, which these symptoms should represent, so that the physician shall be enabled to destroy the predisposition or constitutional condition of the body, by which the malady under different disguises had hitherto been fostered. Here it is that the mere symptomatologist and the pathologist are at issue. The former is too often content with what more immediately excites his attention, and is content to see an essence or moveable being in a symptom; while the latter, combining his knowledge of *post mortem* appearances with the phenomena observed during life and disease, is not satisfied until he discovers the organ and tissue actually diseased, and the state of that organ and tissue, which are represented by the collection of symptoms. These last are nothing intrinsically or isolatedly; their sole importance is derived from what they represent, and this representation is not of an ideal existence, or imagined essence, but of an organized material structure. In the case before us, we find that the favourite remedy of calomel in dysentery, was carried to the extent of producing salivation, with the effect of mitigating, but not curing, the malady, nor of retarding that condition of things marked by anasarcous swelling and orthopnœa indicative of hydrothorax, in which the powers of the medicine are so much lauded. The spirits of turpentine obviated a troublesome symptom; and the colchicum removed another: but this practice of stimulation and revulsion was totally inadequate to prevent or even retard the subsequent troublesome attack on another organ, or series of parts. Let us oppose to this manner of proceeding the probable conduct of a pathologist in the more enlarged sense of the word, by asking whether a careful inquiry into the condition of the mucous and serous tissues in the dysenteric stage of the disease, and the extent of the heart's sympathy, as indicated by the pulse, in the abdominal irritation, might not have led him to the cautious use of the lancet and the application of leeches with demulcents; and if so, and having thus regard to the probable future, as well as to the actual present, he might not have warded off the subsequent pulmonary disease. The authors of the *hospital reports* will, we hope, should these pages meet their eye, have no objection to our hypothetical view of the subject: we propose it with the utmost respect for them, and with no other intention than to arrive at the truth in some of the doubtful points of our common profession. Influenced by similar feelings, and as affording additional illustration of our meaning, if not enforcement of our position, we would say for ourselves, that without regard to the diagnosis, which they thought so important, we have, agreeably to our method of pathological reasoning, bled freely and advantageously in cases where orthopnœa and swelling of the extremities, and, as we thought at the same time, incipient hydrothorax were present; because we inferred from these symptoms, added to the state of the pulse and the difficult or impeded expectoration, that the heart and lungs were unduly tasked and oppressed, and the latter in a state of inflammation of which the effusion of serum was deemed an evidence. Here then the advantage of reasoning from the condition of an organ, rather than from a symptom without regard to what it represents: in the first case the opinion rests on a real or alleged material foundation, and of course its soundness may be readily evidenced or disproved, whereas in the latter case our belief is derived from faith in the dictum of another person, who, on the strength of his experience, and without reasoning, will tell us that he has obviated such and such a symptom by such and such a remedy, and without furnishing us with the slightest clue to guide us in a case where we find the same remedy unsuccessful to obviate what we deemed to be the very same symptom. It must be very obvious that such experience, and yet it is that kind most largely insisted on, and most dogmatically adduced in opposition to reasoning, is mere conjecture, the dictum of the last writer or popular physician, who hands over the staff of authority to his successor, with, at the same time, the transfer of about as much knowledge as would be conveyed by an aged king, who should resign the throne to his son, with an admonition to beware of certain districts, the inhabitants of which were prone to rebellion, and a statement of the means by which he had put it down; but who, at the same time, omits giving the causes of the discontent, and the methods not only of preventing it, but of diffusing content and happiness through the whole nation.

To resume the history of the case of Conner. The most beneficial effects followed the bleeding. All the unpleasant symptoms disappeared; the respiration became tranquil, and the respiratory murmur audible under the left mamma, but was weaker than natural; the crepitus had entirely ceased. A slight return of dyspnœa was relieved by a blister under the left mamma, but an exposure to cold on the 20th, brought back the cough and laborious breathing; with a pulse beating 100, full and strong. The sound on percussion, in the infero-posterior part of the right lung, is duller than natural; and in this situation, a pretty evident crepitus is heard. On the night of the 29th, after previous reported convalescence, he was seized with sudden dyspnœa, much heaving of the chest, hard and frequent cough, without expectoration, and he lay on the left side; pulse 108, full and strong. "AUSCULTATION. Respiratory murmur indistinct below left mamma, crepitating rale under left scapula." Blistering was again had recourse to, but without effect, and another bleeding was directed, by which he was much benefited. The crepitus disappeared, and the cough and dyspnœa were removed. Nov. 3., a return of cough, constant and hard: percussion over the inferior part of the left lung gives a dull sound; and here the crepitus is again heard. The impulse of the heart is much stronger than natural, and the sound is heard over the whole of the right side: the sound of the right ventricle is much clearer than the left, which is dull and prolonged. The auricles give a clear sound, and there is no indication of disease in the valves." Active aneurism of the right ventricle was believed to exist, but whether from actual primary disease of the heart, or from obstruction of the lungs, could not be well determined. "The respiratory murmur gradually diminished over the anterior part of the lungs, especially under the left mamma, where at length it totally disappeared. From this time, no accurate examination was made with the stethoscope; and the effusion, which soon took place into the cavity of the chest, was not pointed out." Death took place on the 17th of December.

Dissection. "Much serum in the cavities of the thorax. The lower lobes of the right lung are hepatized, soft, and of a red colour; the superior lobe is inflamed in the first degree. The lower lobe of the left lung, especially in the point corresponding to the left mamma, is exceedingly solid and of a very dark gray colour.

Active aneurism of the right ventricle; the left is greatly thickened, without alteration of its capacity. No disease of the valves, but there is a considerable thickening, forming a semi-cartilaginous ring immediately above its origin, and causing a diminution of its calibre. The lining membrane of the aorta is much thickened, and apparently tuberculated. This appearance extends for several inches, and is caused by smaller depositions of cartilaginous matter."

Drs. GRAVES and STOKES consider the state of the aorta as "the ultimate cause of all the symptoms;" but we may, notwithstanding, doubt, whether, but for the continued irritation kept up by other diseases, this would have been so much aggravated as to be converted into a cause of suffering and death; at any rate, until after the lapse of a longer period than actually transpired. They remark on the disease,—and their words are worthy of all attention—that, "its situation, its intensity, and the effect of remedies upon it, were in every instance pointed out by the stethoscope, with the utmost accuracy, as was proved by the sectio-cadaveris."

"*Phthisis.*"—The subject of this disease was a female, 27 years of age, admitted early in November, 1825.

"Her expectoration was copious, and consisted of a transparent mucus, in which broken up masses of an albuminous looking substance, mixed with puriform striæ, were seen floating. She constantly lay on the right side. Complaints of five months standing."

The AUSCULTATION, in this case, was of a very interesting nature.

"On the right side, about two inches below the clavicle, the voice appears to issue in the most distinct manner from the stethoscope, and is perfectly articulate; and the last letter of the concluding word is very distinct: in other words, there is true pectoriloquism. At this spot the respiration is distinctly cavernous, giving the idea of air entering a cavity in the pulmonary tissue. At the antero-inferior part of the left lung there is a bronchial respiration of the most evident kind; the sound is sharp, and the air seems to be drawn in through the stethoscope: crepitating rale over the remaining portion of this lung: the sound of the heart is heard in its superior portion.

Diagnosis.—A tubercular excavation in the middle lobe of the right lung, solidification of the superior part of the left lung: inflammation in the first degree, of its remaining portion.

On the 9th of November the bronchial respiration and crepitus had disappeared. *Diagnosis.—The left lung has become solid.* All this time she took small doses of the hydrocyanic acid, which had the effect of checking the sweating, but produced nocturnal diarrhœa, and pain in the stomach. On the 15th the bronchial respiration was again heard; each inspiration was accompanied by a tinkling sound, similar to that produced by the falling of a pin into a cup of glass; the *tintement metallique* of LAENNEC: there was also cavernous respiration. *Diagnosis.—An extensive tuberculous excavation in the superior part of the left lung.* She lingered until the 27th of December, when death terminated her sufferings.

Dissection.—The lungs were universally adherent to the cavity of the chest. In the inferior part of the middle lobe, on the right side, we found an excavation with firm parietes, and about the size of a large walnut. The superior lobe was found also excavated in a more irregular manner. The remainder of the lung was studded with tubercles: the lower lobe had much fewer of them, was still crepitating, but appeared engorged with a frothy and sanguinolent mucus.

The left lung appeared completely solid, but on cutting into its substance, an extensive tuberculous excavation was found capable of containing two oranges. This communicated with many other smaller ones, by winding canals; and in the inferior portion of the lung another excavation of great size was found."

This case is, as our authors with great propriety remark, highly interesting, from the circumstance of their having traced by means of the stethoscope the entire train of pathological phenomena.

The next one is equally conclusive, and, except in its slower progress, is similar in most respects to the foregoing. The diagnosis, *of tubercular excavations in the superior part of both lungs; that in the left half filled with purulent matter; solidification, probably from tubercles of the left lung*, was fully borne out by dissection. The mucous coat of the colon was ulcerated, especially about the caput coli.

The fourth and last case was of 'Emphysema of the Lung,' occurring in a man forty years of age, who, when brought to the hospital, was affected with cough, dyspnœa, general anasarca, and lividity of the countenance; and during the night had paroxysms of orthopnœa; expectoration free, of a yellow colour, and floating together like the white of eggs. He had been subject to an asthmatic cough since boyhood.

The diagnosis after percussion and the use of the stethoscope was at first: "*no hydrothorax. Emphysema of the lung. Bronchitis. Hypertrophia of the heart.*" To which was afterwards added,

> "*Inflammation of the posterior part of the left lung;*" and, before dissection, "*Emphysema, particularly of the right lung; bronchitis, entire enlargement of the right side of the heart, perhaps of the aorta. Remains of pneumonia in the posterior part of the lung.* Hydrothorax may have taken place immediately before death."

On dissection, no effusion was found, the lungs being firmly bound down by old adhesions over the whole surface; the lobes were united by recent inflammation: the *whole of the right lung was in a state of emphysema;* all the air cells appearing dilated, and the pleura in many places raised into vesicles the size of a walnut. The volume of this lung was double that of the left, *its bronchial tubes filled with a muco-purulent fluid, and their lining membrane of a bright red colour.* The left lung was much diminished in size, the upper part studded with large vesicles, the lower of a pale colour and flabby consistence; and a portion of it forming a cavity like an abscess, but found, in fact, to be an enormously dilated bronchial tube, lined by a delicate mucous membrane, from which, when cut, exuded a large quantity of a viscid and yellowish fluid. *Posteriorly the pulmonary tissue was of a dark gray colour, and cartilaginous hardness, evidently the product of former inflammation.* The heart was more than twice its usual size, the *right ventricle greatly enlarged and thickened*, the left thickened without alteration of its capacity. Dilatation of the auricles; no disease of the valves; aorta healthy.

Any laudatory comments on the above cases would be superfluous; and we shall content ourselves with simply asking our readers, whether any or all of the common symptoms or diagnostic characters of pulmonary disease could ever have guided the physician to any such correct inferences as those to which Drs. Graves and Stokes were led by the use of the stethoscope?

These gentlemen seem, however, in their subsequent remarks, to lay too much stress on the necessity of accurately distinguishing pneumonia from hydrothorax, which are not unfrequently two stages of the one inflammatory affection, rather than diseases specifically different from eath other. Our authors are at great pains to show the organic origin of hydrothorax—that it is an effect, not the cause of a disease; an opinion which has been long acted on by the American practitioner, who does not hesitate to bleed with often the same boldness in incipient dropsy of the chest, or the second stage of pleuro-pneumonia, that he would have done in the first stage of this malady. An additional symptom or an occasional effect of a prior morbid condition does not usually, if ever, in his eyes, constitute a new malady, and one to be treated by a new set of remedies. A partial effusion of water in any of the cavities or in the general cellular membrane affords no stronger motive for the abandonment of the use of the lancet and recourse to diuretics, than the occurrence of *subsultus tendinum* in hepatitis, or in certain cerebral affections, would call for the administration of antispasmodics, to the exclusion of general and local depletory measures.

Here we must, for the present, pause, with a promise to resume our notice of this very interesting volume in our next number; a process, which, if we except the withholding for a longer time a knowledge of its contents, will not be of any injustice to our readers, since the papers constituting the reports are on separate subjects, and may each of them be taken up as a distinct and independent work. We must not, however, conclude, without adverting to the plates at the end of the volume illustrative of various morbid alterations described in it; they are well executed, and add much to the value of what, on perusal, seems hardly to require enhancement.

ARTICLE XIII.—*Exposition des Principes de la Nouvelle Doctrine Médicale, avec un Précis des Thèses soutenues sur ses différentes parties; par* J. M. A. GOUPIL, D. M. &c. Instauratio ab imis fundamentis. BACON. A Paris, 1824. Partie I.—*Irritation.*

A BRIEF sketch of the doctrine of irritation, as held by the celebrated BROUSSAIS, and his immediate followers, was announced in our last number, as intended for the present one. For the further fulfilment of this task we had laid out as the subject of a review, the work whose name is recited above, with the pathology of M. BEGIN. An accident has prevented our making direct use of the last; but from our recollections of a former perusal, combined with the more elaborate system now before us, we doubt not an abundant supply of materials for all the development which our contracted space will permit.

The beautiful theory whose outlines we intend to present, may be compared to the atomic system of the celebrated chemical philosopher, DALTON. Like the latter, it harmonizes with, and explains so many facts existing in nature, that it derives from this very circumstance a probability closely approaching to certainty. Unlike this, however, it does not appear as the fortunate hypothesis of an abstracted and speculative mind, but as a chain of inferences drawn from observation. Indeed, if we receive words in a certain acceptation, and withhold, as we are by no means inclined to do, the idea of excess of vital action in the irritative processes, the doctrine of irritation, in the hands of M. GOUPIL, assumes, very closely, the character of a careful and elaborate investigation of natural phenomena. Under these circumstances, we do not know that it is exactly fair to suffer it to lie under what is a stigma with many of our countrymen, the character of a *theory*.

The various and vague uses to which the term irritation has been applied, have been frequently alluded to in the preceding numbers of this publication. We have not time to discuss their propriety; but shall refer to our late review of Mr. TRAVERS, and proceed to describe the meaning attached to it by M. GOUPIL.

Irritation is a *morbid increase of action*, in a part, always accompanied by a preternatural afflux of fluids to the spot. The diminished action of the same part, below the natural standard, constitutes *debility*. M. Broussais does not employ the minute subdivisions of the vital principles adopted by Bichat: "organic sensibility" is never proved to exist, unless by and with the contraction which follows its activity; the "organic sensible and insensible (visible and invisible) contractilities" do not differ in kind, but only in degree; while the "animal sensibility and contractility" are the exercise of functions performed by instruments, and not principles inherent in animal matter. Assimilation is carried on by a different power, "chimie vivante," depending upon the "vital force."

Irritation cannot, from its nature, be universal or general; it can only prevail in particular organs, and debility is produced in others as a consequence. Thus, also, debility can never be general, nor can we remove it by general stimulation, at least without augmenting a local irritation. Here, then, we find ourselves at issue with Brown, and his doctrine of general over-excitement and debility.

M. Broussais has not, according to our author, formally asserted that all diseases are produced by the two modifications of vitality which we have described; but he leaves us to infer that such is the case. All that there is specific in any disease is confined to its causes and their mode of action on the economy; things of the nature of which we are ignorant. Small pox is the result of a specific contagion; but small pox itself consists of irritations of precisely the same nature with those existing in other diseases, and producing local debility in precisely the same manner.

Irritation may be produced either directly, by causes acting in the part irritated, or by sympathy with another part. It may be produced not only by actual stimulation, but also by the long abstraction of a natural and customary stimulus, as gastritis is produced by *starving*. It may be produced sympathetically by another irritation, or finally by the *debility* of another part of the body. Thus cold and damp applied to the skin produce a chill and diminution of the vitality of the surface, but cause increased exhalation or actual inflammation in the mucous membranes of the lungs and nostrils.

There are no substances absolutely stimulant or sedative under every circumstance; all poisonous or remedial agents, while life continues, increase the action of one part, while they diminish that of another.

Irritation is always circumscribed at its origin, and spreads either directly, or by the remoter sympathies.

From what we have said, it will be quite sufficiently obvious, that the doctrine under our consideration differs very materially in its employment of the term irritation from one which is somewhat popular among us; and which describes irritation as a minor degree of a morbid affection that precedes actual inflammation where the latter is about to take place. Irritation, according to the Broussaian usage, which we conceive correct, includes both the major and minor grades; and no distinction from this source is at all employed, unless into healthy excitement, and that morbid degree which is considered as constituting inflammation. To an objection not uncommonly heard among us, that the morbid appearances frequently met with amount to irritation, but are not sufficiently decided to merit the stronger phrase last used, the reply is that the inflammations of the viscera were incompletely studied before the present age, and that we were entirely ignorant of those of the stomacho-intestinal membranes previously to the writings of Dr. Broussais. How then can we judge what is sufficient to constitute inflammation in these organs? or is it reasonable to look in them for those appearances which characterize the corresponding affection of the cellular substance, from which our ideas are taken?

Irritation may be of four kinds; 1. *inflammation*, 2. *hæmorrhagic irritation*, 3. *sub-inflammation*, and 4. *nervous irritation*. Sub-inflammation signifies, not an inferior degree of morbid excitement, but a real inflammatory process, going on in the white capillaries, and producing scrofulous tumours, cancer, tubercles, melanosis, &c. The other terms explain themselves.

Of inflammation. We shall not pause to recapitulate its well known characters. It is not always accompanied with pain. Cases of the greatest violence are upon record, in which there was no pain. Nor is pain a common symptom of inflammations of the schneiderian membrane, nor of the mucous membrane of the lungs. M. Broussais extends this remark to the lining of the stomach and intestines; finding pain frequently not to exist. In other instances, it is more distinctly felt in some remote situation than in the real seat of disease. In coxalgia the pain is felt in the knee, in hepatitis in the shoulder, and in gastro-enteritis in the limbs, frequently far more than in the part originally diseased. Unnatural redness is a proof of sanguine irritation, that is, of inflammation, unless where the colour is owing to the subsidence of blood to a depending part, which may be distinguished by a careful dissector. But, on the other hand, the absence of redness is by no means a proof of the non-existence of inflammatory action previous to death. Severe inflammations of the skin, unquestionable in their nature and severity, and subjected to the eyes of the physician, often entirely disappear before death. Hence, where, during life, symptoms indicate an inflammation of a membrane, moderate in its degree, or of short duration, the marks of this may entirely escape the eye of the dissector, without casting doubt upon his previous judgment of the case. The severity of the sympathetic phenomena is not in any certain proportion to the severity of the original disease. Extreme violence, and even mortification may take place, without awakening much fever; while, in other cases, the sympathetic disease may be far more violent than the original. Thus, in the gout, an obscure irritation in the abdomen may produce an excessively violent one in a joint of the great toe; in children, a mild enteritis may lead on a mortal hydrocephalus, &c. &c. And the febrile excitement may be beyond the usual proportion, and wear the patient out, from a comparatively slight local disease; or, on the other hand, he may live for a length of time, suffering very little from severe local derangements.

Inflammations may terminate suddenly, by the natural or artificial restoration of a suspended secretion, or by the occurrence of a new phlegmasia in a favourable part of the body; they may produce death, either by mortal congestions in organs important to life, or by exhaustion of the vital powers from over-excitement; they may produce the *red hardening*, and become chronic, not preventing the continuance of life, if situated in organs not essential to its preservation; they may be followed by gangrene, which may or may not be mortal; or they may terminate by *resolution* or suppuration. Resolution is viewed by M. Goupil, as implying the secretion of pus, which is immediately re-absorbed, and conveyed out of the body by the excretions.

Of these terminations, suppuration and the red hardening are the only ones which are capable of existing in a chronic form; and they tend to confound themselves with the sub-inflammations.

The chronic phlegmasiæ were ill understood before the time of professor BROUSSAIS; who has assumed them as the basis of his great work. They are identical in their nature with the acuter kinds; and the red hardening, (as hepatization of the lungs, the red thickening round old ulcers, &c.) may be assumed as a fair parallel to what HUNTERIANS call the adhesive stage of phlegmonous inflammation.

Of sub-inflammation. What are called *organic diseases* are in reality the last stage of an irritation of long continuance, but which, from its seat in the white capillaries, is, at first, little capable of disordering the general sympathies of the body. Cancer, tubercles, &c., only exist after a sub-inflammation has already endured for a considerable time. Irritations of this species may be either primitive, originating in the white capillaries in the first instance, or, as is far more frequently the case, secondary, and subsequent to actual red inflammation, generally of the chronic kind. Tubercles and scrofulous tumours are not the result of debility, but of irritation. Yet the effect of *temperament*, in this respect, is such as to account for and excuse this popular error. The *lymphatic* or *phlegmatic* temperament, or, what is nearly identical in its characters, that one commonly known and designated as the *scrofulous*, consists mainly in a predominance of the white capillaries, including the lymphatics, over the whole sanguineous apparatus—such subjects being pale, flabby, with large lymphatic ganglions, and a bulky cellular substance. There is here a real debility, or at least a deficient development, not situated, however, in the lymphatics, but in the heart and arteries. Languor prevails in the great viscera, from this cause; while the colourless portion of the capillaries possesses a greater development in size, and a higher vital activity than in ordinary men. In this apparatus, then, there is a stronger tendency to diseases of irritation, simply from its greater susceptibility of action; and if, *during a state of health*, we could promote a greater size and strength in the organs which employ red blood, and particularly in those which circulate it, we should prevent or diminish the tendency to lymphatic diseases. A kind of antagonism exists between the red and white vascular system; and one is enlarged at the expense of the other.

Where local irritation, however, actually exists, we find a very different state of things. Irritation in the white capillaries is, like all other irritations, an action of increased vitality, and mostly and mainly depends upon a similar state of the blood vessels of the same part. It is, therefore, to be met by depletion, revulsion, and the other means employed in the cure of sanguine irritations, subject to qualifications which arise from its peculiar situation and circumstances.

Our author treats at some length on cancer in particular. The alleged causes of cancer are all irritants: such are contusions and undue pressure on the breast, the causes of chronic inflammation of the same part in child-bed, &c.

There is furnished, from the thesis of M. MARECHAL, an account of fifteen cases, designed to show the usefulness of leeches in cancer. Of these, four were cases of scirrhus, presenting all the usual characters; one, an ulcerated cancer, with reverted edges; four, of the description frequently called cancerous ulcers, commencing, for example, with a wart; and three, of a more doubtful character. In another case, an ulcer originally of a different appearance,* seemed to have been invested with the cancerous peculiarities, by the injudicious use of stimulants, and subsequently deprived of them, and healed, under a treatment embracing emollients and the use of leeches. In two others, the patients were cut off, during the progress of the cure, by severe attacks of erysipelas; and this circumstance giving an opportunity of dissection, those parts which had lost their cancerous characters during life, were found divested of them when their substance was examined; while, in the other parts, the peculiar structure was distinctly visible. These circumstances were uncommonly interesting, as affording a confirmation of the judgment already formed of the case.

In several of these cases, we have the highly respected authority of professor LALLEMAND. The *symptoms* of cancer are so obviously of a highly irritative kind, as to need no discussion.

Hæmorrhagies, not the result of wounds or ulcerations, arise from a true irritation, less in degree than that constituting ordinary inflammation. For the fuller development of this subject, we refer to a paper by Dr. Condie, embracing a view of the doctrines of M. Broussais, and inserted at p. 236 of the 3rd volume of this Journal, relative to hæmorrhagies.

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* Called *venereal*, from its occurring twelve years after a gonorrhœa.

Febrile ecchymoses and petechiæ do not arise from debility, but from an actual irritation at the spot; and a proof of this is found in the circumstance, that they disappear with the circulation, in articulo mortis. The same may be said of scorbutic petechiæ and hæmorrhagies; although this by no means forbids the existence of debility in other parts of the body.

Of Nervous Irritation.—In all irritations, Dr. Broussais assumes, as is usually done,* that the nervous fibrils of the part are primarily affected; and frequently extensive sympathies are set in motion, without any phlegmasia of the part irritated being the consequence. Wherever inflammation is developed, the malady is considered as falling within the class already described; and, from this cause, epilepsy and various other affections, commonly classed as neuroses, are viewed, in most cases, merely as inflammations of the brain, accompanied by the spasmodic motions, &c. as symptoms. Nor is this all: the greater part of the visceral neuroses, (many dyspnœas and coughs, palpitations, globus antiperistalticus, spasms of the intestines, hysteria, nymphomania, &c.) depend, in reality, on a chronic phlegmasia of some internal part; and even the non-inflammatory nervous irritation is, by continuance, extremely apt to interest the vessels, and become itself converted into an inflammation. The class of neuroses thus becomes of less importance, or, to speak more correctly, these diseases should be uniformly studied in connection with the phlegmasiæ.

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* This, we would remark, is entirely hypothetical, though a doctrine so generally received. We would not occupy the text with the discussion; but will here append two reasons for doubting it, and disbelieving its necessity as a mode of influencing the capillaries.

1. Nervous fibrils have *never been detected* in the capillaries, nor in or along the texture of the small arteries of the extremities. The proper nerves of the arteries of the limbs terminate, to all human vision, at a few inches below the shoulder and hip; and the smaller branches in the limbs are remarkably exempt from nerves, seldom receiving a minute twig from the adjacent parts! (*Vide Bichat, Anat. Generale.*)

2. That irritations can take place, without any nervous agency, is demonstrated by the occurrence of these processes in vegetables, and in the radiated animals. Familiar examples of this may be found in the growth of plants, and the rapid maturity of fruits and flowers, under the influence of the sun; all of which is performed by vessels without nervous intervention.

Of the remainder of our subject, we omit the *treatment*, as not admitting of the rapid and cursory description which we have already given. It is here, too, that Dr. Goupil would think us most heretical; and we could not, in conscience, let the subject pass without a discussion. For the subject of *intermittence* in irritation, too, the reader may be referred to a review of the fine work of Mongellaz, in our first volume, p. 323. The little space yet left us, will oblige us to hurry over the important analysis of the *sympathies* in a still more hasty manner than what we have already penned.

The general symptoms of febrile and most other diseases may be analyzed and explained with remarkable neatness and beauty, by the doctrine of sympathy, as professed by the school to which M. Goupil has attached himself. Those various characters which are frequently cited as proofs that fever is a "general disease," all consist of irritations of particular parts of the body, and never of the whole body at the same time. Thus, in ordinary fevers, the debility is in the operations of the voluntary muscles, while the heart is excited into unusual activity, and the organic functions carried on in the brain are exalted to a high degree, at the expense of the mental powers. Thus a greatly increased circulation takes place, with heat and pain in the head during life, and redness and effusion after death. At the same time, all these symptoms arise from an irritation previously existing in some other part of the body, most usually in the stomach. Of the febrile state, however, we shall shortly have to speak again. Sympathies are not actions in themselves morbid, but are merely exaggerations of the natural vital relations of the different parts of the body; being only owing to an undue provocation of powers which belong to the body in health. The word sympathy is here used exclusively to express the morbid state; it is equally applicable to the healthy influences which extend through the body; though, by the school of Dr. Broussais, it is more generally used as we have mentioned.

The activity of sympathies is extremely various; sometimes [illegible]g, as is well known, excessively violent from a trifling cause, while, in other instances, death has taken place from the most terrific morbid changes of an important organ, and neither the pulse, the heat of the surface, nor the operations of the mind, have betrayed any very perceptible modification by them.

The French authorities quote MORGAGNI for cases of mortification of the stomach illustrating this point. We would cite the well known "*walking cases*" of yellow fever. Here an unquestionable gastritis of great violence takes place, runs its course for two or three days, producing the fatal black vomit, and death; and the patient, during all the time, is hardly perceived to be unwell. We well remember an instance of this kind, in 1820, in which, during three days, the patient's pulse was repeatedly felt by the physician at the time attending his sister, and the individual was judged to be only suffering from depression of mind. Two hours of visible illness precipitated him out of existence.

Sympathies vary according to the intensity of the original impression; according to the susceptible part of the body first stimulated, and finally according to the constitutional irritability of the subject of them. These differences are considered sufficient to account for all the varieties of cases known.

Dr. GOUPIL distinguishes between sympathetic and merely *symptomatic* affections, alike arising out of an original disease. The oppression of breathing which is produced by a dropsy of the belly or thorax is mechanical: this, then, is symptomatic, but not sympathetic. Again, when the sympathetic irritation acquires a certain degree of intensity, it ceases to be a symptom, and constitutes a secondary disease. Thus in the early part of gastro-enteric fevers, there is frequently acute pain in the lower part of the forehead: and this is symptomatic. But if, on the other hand, actual inflammation of the brain supervene, the functions of the mind are sensibly disturbed, and effusion or thickening of texture, takes place in the brain or meninges, this, then, is no longer a symptom, but a secondary disease. We apprehend that the distinction here expressed is hard to be accurately drawn; as it is highly probable that in every febrile head-ach there is a more active circulation of blood through the parts affected with pain than in the natural state; and at what point is this sufficient to convert the symptom into the secondary disease?

The new irritation thus effected is of exactly the same nature with that which would have been produced by the direct application of a stimulus to the part which is now sympathizing. The encephalitis which we have just been proposing as an example, is really the same disease which might have been produced by a blow, or by the excessive heat of the sun.

Diatheses to particular diseases, are owing, according to Dr. Broussais, to a similar increase of vital activity pervading the different parts composed of a similar tissue or texture. This may arise, first, from a constitutional predominance, in vital activity, and very frequently in size, of that particular texture in the body of the individual; and, secondly, from a disposition in parts of the same structure to sympathize with each other, and of course to take on similar actions, as the undue excitement of any tissue always shows itself possessed of the same peculiar characters. Hence, a person who already suffers from a scrofulous inflammation or a lymphatic ganglion, is the more predisposed to a recurrence of the complaint in a remote part of the body, at once from the greater tendency to it which all the white capillaries of his ganglions may be presumed to have possessed, and from the sympathy of new parts of the same structure with those previously affected.

As the sympathies often afford far more striking means of discovering a disease than the local symptoms, we may easily judge of the importance which a careful study of them possesses for the purposes of practice, even independently of the beautiful manner in which they explain various anomalies and unintelligible groups of symptoms which perplex the nosological student. Head-ach is frequently the symptom first discovered in derangement of the stomach; and an obscure, slow disturbance of the circulation, that of a chronic inflammation of an abdominal or thoracic viscus, &c.

In the state which is familiarly known to us by the name of fever, M. Broussais conceives that the principal symptoms arise from irritations, existing at the same time, and re-acting upon each other by sympathy in the *brain*, the *heart*, and the *stomach*, including the upper bowels. These three great centres of vital action are in an equal degree those of sympathy; and it is difficult to point out a case of disease extensively awakening the sympathies, in which they are not interested. In numerous cases, these different but coinciding irritations arise in the organ last named; and the case is then termed a *gastro-enteritis*, unless indeed the secondary irritation of the brain amount to inflammation, in which case, *encephalitis* or *cerebritis* is added to the original malady. Inflammation of the *heart* is more rare. Fever is thus an irritation, not of the whole system, but of these three organs; and very frequently arises from inflammation of the stomach and bowels. Yet fever may arise, as is well known, from inflammation of many other parts of the body. Thus "symptomatic fever" is a phrase very common in our mouths; and many cases denominated fevers, and treated as such, have been unquestionably inflammations of the brain, peritoneum, &c. In these instances, the three great sympathetic centres of which we have already spoken are usually all interested; and this is the reason why gastro-enteritis is considered as involved in such a great variety of cases. The further discussion of this point we must avoid; as the subject of itself is sufficiently copious for the most prolonged consideration.

A number of our author's pages are occupied with the subject of *metastases* and *crises*. We lament that we cannot expatiate on this point; as our limits permit such an extremely small space for the present rather retrospective article. It is, however, of the less consequence, as it is addressed mainly to the pupils of the school of PINEL, the votaries of natural cures and of the *médecine expectante;* a doctrine which prevails but little in our country. But few American physicians are found who depend on *crises* for the patient's recovery, or expect them to eliminate morbific matter. We could wish to abridge some more of the subject of metastases; as it is of greater value in the practical discrimination of diseases. At page 142, are expressions which convey a somewhat different idea of *symptoms* from those which we have already quoted. They are here sympathetic irritations less strong than the original malady. If the secondary irritation become stronger than its parent, *vehementior obscurat alterum*, and a metastasis takes place, curing or diminishing the previous disease. We apprehend this to be less generally the rule than is here expressed. Metastases, of course, take place to parts endued with an unusually high, and not a low, state of vitality: the part must be unusually subject to active irritation. It is hence improper to term such "*weak parts.*"

One metastatic or inverse sympathy, it is important to mention here. We have already spoken of an antagonism between the organs of sanguine circulation and the white capillaries. Another exists between the former and the nerves. In violent inflammations, in those of organs richly endowed with nervous terminations, or in those of great extent, the mind and muscles undergo a great degree of hebetude. The operations of the former become slow and difficult, or are interrupted; and the latter are overpowered with lassitude. This is a fruitful source of the idea of debility in fevers: the debility is real, but, far from being general, is owing to a severe over-excitement of the powers of life in another part.

We are far from suggesting or wishing to make the impression that the above hasty sketch is a sufficient one of the *doctrines of irritation*. We earnestly recommend, to those who have access to them, the perusal of the original works on these subjects; and nothing but the necessity of the case induces us to be thus brief and incomplete. We have, however, endeavoured, with the exceptions already pointed out, to run through the whole subject.

C.

MEDICAL LITERATURE.

RETROSPECTIVE REVIEW.

ARTICLE XIV.—*Discourse upon the Institution of Medical Schools in America; delivered at a public Anniversary Commencement, held in the College of Philadelphia, May* 30 *and* 31, 1765, *with a Preface, containing, amongst other things, the Author's Apology for attempting to introduce the regular mode of practising Physick in Philadelphia.* By JOHN MORGAN, M. D. Fellow of the Royal Society at London; Correspondent of the Royal Academy of Surgery at Paris; Member of the Arcadian Belles-lettres Society at Rome; Licentiate of the Royal Colleges of Physicians at London and Edinburgh; and Professor of the Theory and Practice of Medicine at Philadelphia.—*Philad.* 1765. pp. 91. 12mo.

A Vindication of his Public Character in the station of Director-General of the Military Hospitals, and Physician in Chief to the American Army, anno 1776. By JOHN MORGAN, M. D. &c. &c. *Boston*, 1777, pp. 158. Pamphlet.

De Puopoiesi, sive Tentamen Medicum Inaugurale de Puris Confectione.—Edinburgh, 1763. 8vo. pp. 55.

THE history of Dr. JOHN MORGAN affords a striking example of the dangers and sacrifices to which men are subjected, when, acting under the impulse of an enlightened benevolence, they dare to oppose the barriers of their genius and courage against the encroachments of new, or the domination of ancient and established prejudices. Poverty, neglect, and contempt, or what to some minds is still worse, oblivion, are at least very common consequences of a liberal and exercised zeal for the public welfare. Yet being in "stripes often, and perils often", cannot extinguish or suppress the sacred fire of benevolence, which bountiful heaven hath kindled in the warm bosoms of some men; there are those, who, to do good, will pursue the even tenor of their way like him so beautifully described by the Roman, whom

> Non vultus instantis tyranni
> Mente quatit *solida.*
>
> * * *
>
> Si fractus illabatur orbis,
> *Impavidum* ferient ruinæ;

nothing but death can conquer their indomitable desire of doing good to their fellow creatures: cotemporaries may affect to despise the talents and virtues which they cannot emulate or appreciate, but posterity often comes to do ample justice to him, whose whole life has been but a scene of privations and sacrifices; and it is perhaps in the distant prospect of a long deferred justification, that we must look for the source of that undying hope which sustains the good man who goes to the stake to justify his faith, or lingers out a more enduring and living martyrdom, rather than abandon what he conceives to be a wholesome and sound principle.

Great and good men have indisputable claims to the gratitude and veneration of posterity, and hence, we conceive ourselves to be discharging an important duty, in attempting to present to the readers of this journal, an account of Dr. MORGAN's works, accompanied with such remarks as may be suggested by their perusal, and not failing at the same time to refer to such jejune and scattered documents as we have collected in reading, and in conversation with those who knew him personally. Even the perishable pages of a journal may serve at least as the temporary depository of the fragments of his biography, who was the unquestionable founder of American Medicine; should they be the means of rescuing his memory from the oblivion into which it seems fast sinking, by affording materials to the future historian of our science, our object will be fully attained.

Dr. MORGAN was a native of Philadelphia, and "acquired the rudiments of classical learning at the Reverend Mr. FINLEY's Academy in Nottingham,"* then the most distinguished private seminary in the middle colonies. He was among the first pupils of the college of Philadelphia that received the honour of a degree.

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* Dr. Rush's Eulogium.

Dr. Rush says he began to study medicine while he was in the college, and that he graduated A. B. in 1757. This explanation we make lest there might be an apparent inconsistency in what he says below, as to the duration of his medical studies, and the date of his graduation, in the following extract, which furnishes us with an outline of his history previous to his appointment to a chair in the college, in May, 1765.

> "It is now more than fifteen years since I began the study of medicine in this city, which I have prosecuted ever since, without interruption. During the first six years I served an apprenticeship with Dr. John Redman, who then did, and still continues to enjoy a most justly acquired reputation in this city for superior knowledge and extensive practice in Physick. At the same time I had an opportunity of being acquainted with the practice of other eminent physicians in this place; particularly of all the physicians in the hospital, whose prescriptions I put up there above the space of one year. The term of my apprenticeship being expired, I devoted myself for four years to a military life, principally with a view to become more skilful in my profession; being engaged the whole of that time in a very extensive practice in the army amongst diseases of every kind. The last five years I have spent in Europe, under the most celebrated masters in every branch of medicine, and have spared no labour or expense to store my mind with an extensive acquaintance in every science that related any way to the duty of a physician, having in that time expended in the pursuit, a sum of money, of which the very interest would form no contemptible income." *Preface to the Discourse.*

He acquired a high character by his humanity and diligence in the army which was raised in the old French war; and Dr. Rush, in his eulogium, brings the following strong evidence of Morgan's worth:

> "I well remember to have heard it said, that if it were possible for any man to merit heaven by his good works, Dr. Morgan would deserve it for his faithful attendance upon his patients;"

meaning the sick and wounded under his care. Dr. Rush also informs us, that he bore the double commission of lieutenant and surgeon in that war, but only acted as surgeon.

In 1759 he went to Europe, and seems to have travelled through Holland, France, Italy, and England, in company with Samuel Powell, Esq. a wealthy and distinguished citizen of Philadelphia, to whom he was subsequently indebted for many acts of kindness, and who never ceased to bestow on him the marks of a firm and well-founded friendship.

In London he attended the lectures and dissections of Dr. William Hunter, and consequently must also have known his celebrated brother, Mr. John Hunter. Two years were devoted in Edinburgh to the acquisition of knowledge, under the auspices of Cullen, the Munroes, Rutherford, Whytt, and Hope; and, after publishing, and publicly maintaining his Thesis *De Puris Confectione*,* he was admitted to graduate in that University. He afterwards devoted a winter at Paris, to attendance on anatomical lectures, and to dissections under M. Sue; and his admission into the academy of surgery, was the reward for a beautiful injection of a kidney that he had the merit of preparing. Such a course of studies pursued by a studious man, such as Morgan always was, could not fail to imbue his mind with a greater extent and variety of useful knowledge, than was attained by most of his cotemporaries; since few American physicians of his time could be said to "spare no pains or expense" in this pursuit.

In his journey to Italy he passed an hour with Voltaire at Geneva; and at Padua he seems to have gained old Morgagni's whole heart. Dr. Rush says,

> "This venerable physician, who was the light and ornament of two or three successive generations of physicians, was so pleased with the Doctor, that he claimed kindred with him from the resemblance of their names, and on the blank leaf of a copy of his works which he presented to him, he inscribed with his own hand the following words:—*Affini suo, medico præclarissimo*, Johanni Morgan, *donat auctor.*"

These volumes are now in the library of the College of Physicians of Philadelphia, a present from the Doctor.

The honours paid him by foreign societies, the excellent character he had acquired at home by his conduct as army surgeon, and the warm friendship of his fellow traveller, Samuel Powell, Esq. together with the commendatory letters of Dr. Fothergill, Dr. William Hunter, and others, gave him considerable *eclat*. On his return to his native city, he was already famous; and we have been told by a venerable citizen, who still remembers very distinctly the dash of his *debut*, that he excited the wondering gaze of the people, by carrying a silk umbrella, a novelty and mark of effeminacy so unheard of in those days of *friendship* and *plainness*, that my informant recollects calling the family to the window, in order that they might witness the novel spectacle. We mention this to show there was something uncommon in his turn of mind, as we conceive it requires something peculiar to engage a man to attract, by any oddity of dress or deportment, the attention of his fellow creatures: MURAT was as remarkable for the strangeness of his costume as for his charges at the head of his cavalry; a man would look as odd without a long beard at Mecca, as he would with one at Paris, and the commonalty at both those places will generally be found among the conformists of custom: had the Doctor been like other people he would have preferred one of the heavy, glazed, roof-like umbrellas, which, though less ostentatious and convenient, would have been more conformable to the usages of the people.

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* In his dissertation, after reviewing the opinions of many eminent physicians on the nature of pus, he comes to the conclusion that the fluid is proved by an operation of the animal becoming very analogous to *secretion*, or indeed is a peculiar secretion from the living blood, made by the vessels in certain states of inflammation; and it is probable that he was the first to announce this doctrine. We have no space here for an examination at length of his arguments.

While absent from home, enjoying the precious advantages of systematic instruction, whose "appliances and means" he found so powerful in facilitating his progress, his heart expanded towards his native country, and he resolved to bestow on it a durable benefit, by establishing a regular medical school in Pennsylvania. That he formed this design abroad is evident, not only from the commendations which he brought in its favour from distinguished foreigners, but from the "Address" itself, which, as he tells us in the dedication, was written at Paris, and submitted to the criticism of his accomplished friend POWELL.

Accordingly, in the month of April, 1765, he arrived at Philadelphia, and on the 3d of May following was elected Professor of the Theory and Practice of Medicine in the College of Philadelphia, an institution, which, dating its rise from the year 1749, had already, under the auspices of its patrons, attained to a considerable reputation and usefulness in the province.

The discourse, the title of which is placed at the head of this article, was delivered at the public commencement, in great form and ceremony, the speaker appearing in flowing robes, so as to give to his oration as much of the ex cathedra tone as possible. A venerable gentleman who graduated on that occasion, informed the writer of this, that there was a very great concourse of respectable citizens to witness the performances. The commencement was held in the north end of the building, now called the Academy, near the corner of Fourth and Arch streets. It was then a spacious room, having a deep gallery on three of its sides.

We shall insert a copy of the advertisement announcing the enterprise which **Morgan** had now commenced; it has a claim to the right of record in our department of Medical Literature, which we have no disposition to resist.

"*College of Philadelphia, May 3rd,* 1765.

"The public Commencement in this College is to be on Thursday, the 30th of this inst. May; and the exercises now preparing, it is hoped, will be both interesting and entertaining. The young gentlemen residing at a distance from the College, who are standing for their Master of Arts Degree, and propose to take the same, are requested to attend some days before the Commencement, that their names may be inserted in the Mandate, and other necessary preparations made.

"At a meeting of the Trustees held this day, **John Morgan** of this city, M. D., Corresponding Member of the Royal Academy of Surgery at Paris; Licentiate of the Royal College of Physicians at London, and Member of the Arcadian (Belles Lettres) Society at Rome, was unanimously elected Professor of the Theory and Practice of Medicine in the College of Philadelphia. At the ensuing Commencement he will deliver an address, (which will be soon afterwards published,) in order to show the expediency of instituting a medical school in this seminary, and containing the plan proposed for the same: in which there will be room for receiving professors duly qualified to read lectures in the other branches of Medicine, who may be desirous of uniting to carry this laudable design into execution. *Dr. Morgan's plan* has been warmly recommended to the Trustees by persons of eminence in England, and his known abilities and great industry give the utmost reason to hope it will be successful and tend much to the public utility."*

Accordingly, Dr. **Morgan** gave his address at two sittings, one on Thursday 30th, and the other on Friday 31st, which is mentioned as follows in the published record of the commencement days. After noticing other exercises by the candidates, and the first part of the address, the Gazette says,

"Dr. **Morgan** then finished the remainder of his oration, and as it is soon to be printed, we would not wish to anticipate the judgment of the public, and shall only say, the perspicuity with which it was written and spoken, drew the close attention of the audience, and particularly of the gentlemen of the faculty of physic."†

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* Pennsylvania Gaz. May 9, 1765. † Pennsylvania Gaz. June 6, 1765.

The oration was not published till some time afterwards, on account of unavoidable delays, to which the Doctor alludes. It is first announced as just published, in the Gazette of Sept. 5, 1765. This delay enabled him to write a Preface and Apology, which extend through twenty-six pages of his book. We shall now endeavour to make our readers acquainted with some parts of this apology, not the least interesting portion of the whole publication.

Founding his views of duty, not merely on the law that he who provideth not for his own is worse than an infidel, he saw the beneficial consequences which would be likely to accrue to the character of his vocation, by separating it into departments, each of which could be more successfully cultivated, and carried to a higher degree of perfection and availableness for the common weal, if occupying the single and total scope of a particular class. He could not have been unaware of the risk he incurred, even by the indication of a wish to alter the ordinary and settled routine of medical practice as established in his native city. Yet, stanch to the suggestions of duty, he declared his views and intentions in the following bold terms.

"This [delay] has determined me to commit to the press, the plan of practice by which I design to regulate myself as much as possible; and to deliver my sentiments very briefly on the expediency of a regular and distinct practice in the several branches of medicine. The public will then be able to judge more clearly of the propriety of those measures which, from a *full persuasion* of their great utility, I venture to recommend."

"First, I propose to confine myself in practice to those cases which belong most immediately to the office of physician: that I may prescribe for and attend such cases to greater advantage, I shall therefore avoid, all I can, interfering in the proper business of surgery, viz. manual operation."

"I do not mean, however, to refuse to inoculate for the small pox, where my patients, or their friends, object to employ another hand to make the incision. This may frequently happen, although there is no more difficulty or art required in it, than in cutting an issue or inserting a pea, or than in cupping or bleeding."

"Secondly, I propose in such cases as shall be required, to attend in consultation with other physicians, on the same terms as those of character enter into consultation with one another."

"Thirdly, I shall give my opinion in writing, on the complaints of persons at a distance from Philadelphia, whenever the history of the case is properly drawn up and transmitted to me for advice."

"Fourthly, in such cases of surgery as require consultation, I am willing to attend, prescribe, consult, or advise, but not to perform any operation myself, or dress any wound." *Preface.*

In order to enable him more completely to carry into execution this bold design, he says, " Mr. DAVID LEIGHTON, a gentleman of abilities and integrity, educated in Great Britain both in Pharmacy and Surgery, has accompanied me hither. To him I send to make up my prescriptions." His patients, however, were to be "allowed to choose any other apothecary, or surgeon, for the operative part;" and he further informs us, that Mr. LEIGHTON had brought out a complete assortment of the best medicines, prepared by the Messrs. Bevans of London; these medicines, together with surgical operations, were to be the subjects of distinct charges by and for Mr. L.

"As to fees," Dr. MORGAN proposed to make them moderate; for example—

> "It is true that upon my first arrival I expressed my desire of being paid for a certain number of visits at a *pistole* the first visit, as a *retaining fee*, and a dollar for every visit afterwards. It was not my intention to require more than one fee per day, although I might wait on the patient oftener; nor yet every day that I visited once, where a disease of a lingering nature, or requiring particular care, would render my attendance expensive. A retaining fee I expected to receive from the rich, not from the poor; and had firmly resolved in no case to receive more fees than sufficient to pay me for the value of my time, and trouble of attendance."

In another place he says,

> "Instead of making a charge of fees, I willingly leave to the patients themselves to give what they please, upon my dismission from further attendance, or as soon after their recovery as shall be thought convenient, without specifying any demand, unless where patients particularly require it. This I look for to prevent the necessity of making a *book charge of fees, which is never done in any liberal profession.*"

The want of good opportunities of making his plan known, had in some measure frustrated his "good intention." This, and the advice of his friends, had induced him to resolve, that he would make some modification of his design, so as to adapt it better to the "customs and circumstances of the people." Notwithstanding, he observes,

> "The preceding plan I have ever since constantly followed, to my entire satisfaction, and I hope to that of my patients; and also, in most instances, I have found their generosity has much exceeded my expectations."

He fortifies with many judicious observations, his opinion of the utility of separating the duty of the physician from that of the apothecary. From among these, we cannot omit the following.

"Nobody I believe will deny that the practice of rating medicines, at such a price as to include the charge for medicines and attendance, is liable to gross impositions on the part of ignorant medicasters, too many of whom swarm in every city. Patients who are kept in ignorance of what price medicines are, considered separately, and what is the value of physical skill and attendance, naturally think the original cost of medicines, which are comparatively cheap, to be very dear, and undervalue the skill of a physician, his toil of study, and his expense of time and money in his education, which have often amounted to very large sums, and to many years spent abroad in quest of knowledge, as if they were of no consideration.

"The levelling of all kinds of practitioners so much with illiterate pretenders, who have art enough to gain employ, however ill qualified in that of healing diseases, has a tendency to deter persons, otherwise of just and liberal sentiments, from putting themselves to a further expense to gain knowledge, than what is sufficient to make money. This is to make a vile trade of physic, instead of a noble profession; which as it certainly is, so it ought to be esteemed."

Under the head of "the advantages of a separate and regular practice of physic, surgery, and pharmacy," he not only rebuts the objections which some had made to his plan, but plies his arguments with great naiveté and vigour, to show the propriety of his opinions.

"It is not only expedient," says he, "but necessary that a physician should have a general and extensive knowledge of the whole art, and be acquainted with the principles of every branch of his profession. Thus the general of an army should be acquainted with every part of military science, and understand the whole detail of military duty, from that of a colonel, down to a private sentinel: but there is no need that he should act as a pioneer, and dig in a trench.—No more then is a physician obliged from his office to handle a knife with a surgeon; to cull herbs with the botanist; to distil simples with the chymist; or compound drugs with the apothecary, &c.

"But practitioners in great business never do, or can do, the business of an apothecary in this place, themselves: they have apprentices for the purpose. After visiting the sick, do not their apprentices make up their prescriptions? I would ask, is not an apothecary, thoroughly acquainted with the art of compounding and making up medicines, as skilful in it as an apprentice? Is not a man educated in the profession, to be trusted in preference to one who is only learning that business? or has the master, who may be called from place to place, to attend other cases of surgery, or see other patients, always time to wait for medicines to be made up under his eye?"

We shall close our account of the preface by quoting its con cluding paragraph, fit to be engraved, in honour of his memory, on the tomb stone of this high-minded and enthusiastic advocate of medical improvement. Some had charged him with rating too high the difficulties and expense of a medical education, whereby it was feared he might deter, rather than encourage students to perfect themselves in medical science. To them he replies,

> "Nobody who is anxious to be skilful in the divine art of healing, will be a niggard of the necessary trouble and expense of rendering himself intelligent in every thing his profession requires he should know. Whoever is sparing of these, has no cause of complaint, if he is rewarded only according to his merit, *unless he would invert scripture, and the laws of reason*, and casting his eyes on those who have sowed plentifully in knowledge, and reaped but little pecuniary advantage from thence, think, from sowing sparingly, he has a better title to expect that his ignorance should be rewarded with a bountiful harvest."

Having followed our author through his preface and apology, yet omitting many agreeable parts of it, we shall proceed to observe that he commenced his course of lectures in conjunction with Dr. SHIPPEN, who was elected professor of anatomy and surgery in the college of Philadelphia, on the 17th day of September, A. D. 1765.

The following advertisement relating to the first collegiate course of medical instruction in the new world will not be considered out of place in a review of the Doctor's address. We have extracted it from the Pennsylvania Gazette.

> "As the necessity of cultivating medical knowledge in America is allowed by all, it is with pleasure we inform the public that courses of lectures on two of the most important branches of that useful science, viz. anatomy and materia medica, will be delivered this winter in Philadelphia. We have great reason, therefore, to hope, that gentlemen of the faculty will encourage the design, by recommending it to their pupils, that pupils themselves will be glad of such an opportunity of improvement; and that the public will think it an object worthy of their attention and patronage. In order to render the courses the more extensively useful, we intend to introduce into them as much of the theory and practice of physic, of pharmacy, chemistry and surgery as can conveniently be admitted. From all this, together with an attendance on the practice of the physicians and surgeons of the Pennsylvania hospital, the students will be able to prosecute their studies with such advantages, as will qualify them to practise hereafter with more satisfaction to themselves, and benefit to the community. The particular advertisements inserted below, specify the time when these lec-

tures are to commence, and contain the various subjects to be treated of in each course, and the terms on which the pupils are to be admitted.

WILLIAM SHIPPEN, M. D., Professor of
Anatomy and Surgery in the College of Philadelphia.
JOHN MORGAN, M. D. F. R. S., and Professor
of Medicine in the College of Philadelphia."

The particular advertisements referred to, are the announcements of the respective courses of lectures: Dr. Shippen's to begin Thursday, the 14th of November, 1765; to consist of about sixty lectures, comprising a series of demonstrations on the recent subject, surgical operations on the same, a course of exercises in bandaging, and directions on midwifery practice. Each pupil to pay six pistoles, and those who attended the hospital to pay six pistoles to that charity.

There is a curious appendage to this advertisement; Dr. Shippen takes occasion in it to declare the falsehood of a report, that he had taken up the bodies of persons interred in the church burial ground.

> " The Doctor with much pleasure improves this opportunity to declare, that the report is absolutely false, and to assure them (the public) the bodies he dissected were either of persons who had wilfully murdered themselves, or were publicly executed; except now and then one from the Potters-field, whose death was owing to some particular disease, and that he never had one body from the church, or any other private burial place."

The other advertisement announces Dr. Morgan's course; to commence on Monday, the 18th of November, to be given three times a week, at the college, viz. Monday, Wednesday, and Friday, at 3 P. M., to last between three and four months; price four pistoles. We have no room for further particulars. His scope was a wide one, however, embracing perhaps more topics than could be successfully handled in so short a period.

We shall now proceed with the introductory lecture, which, after a few general and preliminary remarks, comprising a rapid sketch of the departments of medical science, as Anatomy, Surgery, Practice, &c. furnishes many excellent and judicious observations on the propriety of an attempt to establish a regular medical school in Philadelphia; a clear exposition of the many advantageous circumstances available to that end, growing out of the eminent abilities of the cotemporary practitioners, as Bond, Cadwallader, Shippen, &c.; the opportunities of acquiring clinical instruction in the Pennsylvania hospital, the flourishing state of literature in the college, and finally the beauty and extent of the city, as well as its central position in relation to the sister colonies.

> " The scheme of establishing medical lectures, which I now subject with all deference to your consideration, has been communicated to some very competent and unbiassed judges in England, who not only deem it practicable, but a laudable and useful enterprise. The great and well known Dr. FOTHERGILL, the justly celebrated Dr. HUNTER, the learned Dr. WATSON, men distinguished for their superior knowledge in literature, and particularly eminent in every thing which relates to medical science, have esteemed the improvement of such knowledge amongst us worthy of notice, and the institution of lectures in every branch of Medicine as deserving the patronage of all who wish well to arts and sciences."
>
> "It is with the highest satisfaction I am informed by Dr. SHIPPEN, Jun., that in an address to the public as introductory to his first Anatomical Course, he proposed some hints of a plan for giving Medical lectures amongst us. But I do not learn that he recommended at all, a collegiate undertaking of this kind. What led me to it was the obvious utility that would attend it, and the desire I had of presenting, as a tribute of gratitude to my *Alma Mater*, a full and enlarged plan for the institution of Medicine in all its branches, in this seminary, where I had part of my education, being amongst the first sons who shared in its public honours. I was further induced to it from a consideration, that private schemes of propagating knowledge are unstable in their nature, and that the cultivation of useful learning can only be effectually promoted under those who are patrons of science, and under the authority and direction of men incorporated for the improvement of literature."

The reader will have perceived above, that Dr. MORGAN claims the honour of first conceiving, as well as maturing and presenting a plan for the foundation of medical schools. He acknowledges that Dr. SHIPPEN had already given courses of anatomical lectures, and had proposed " hints of a plan for the institution of lectures," but without any design of a " collegiate undertaking." Far be from us the wish to take from the memory of Dr. SHIPPEN one single leaf of that hard earned wreath, which we are sure will be, as it has been, voted to his immortal memory; immortal we may be permitted to call it, because the history of American Medicine can never perish, and while that remains, SHIPPEN, one of its founders, and illustrators, will live in the grateful remembrance of the learned and the good. SHIPPEN'S glory is ascertained, and we cannot be deemed officious, if we attempt to "drag up the drowned honour" of his equal in learning, his ardent and almost forgotten associate in the high cause of our noble profession.

The minutes of the University of Pennsylvania contain many documents which relate to this part of our Medical history. The following letter from THOMAS PENN, Esq., one of the proprietors, is transcribed from them.

"A Special Meeting of the Trustees, May 3rd, 1765. Present, &c. &c. A letter from the Hon. THOMAS PENN, Esq., was read, viz.

"*Gentlemen*—Dr. MORGAN has laid before me a proposal for introducing new professorships into the college for the instruction of such as shall incline to go into the study and practice of Physic and Surgery, as well as the several occupations attending upon these necessary and useful arts.

"He thinks his scheme, if patronized by the Trustees, will at present give reputation and strength to the institution; and though it may for some time occasion a small expense, yet after a while it will gradually support itself, and even make considerable additions to the academy funds.

"Dr. MORGAN has employed his time in an assiduous search after knowledge in all the branches necessary for the practice of his profession, and has gained such esteem and love from persons of the first rank in it, that as they very much approve his plan, they will from time to time, as he assures us, give him their countenance and assistance in the execution of it.

"We are made acquainted with what is proposed to be taught, and how lectures may be adopted by you; and since the like systems have brought much advantage to every place where they have been received, and such learned and eminent men speak favourably of the doctor's plan, I could not but in the most kind manner recommend him to you, and desire that he may be well received, and what he has to offer be taken with all becoming respect and expedition into your most serious consideration; and if it shall be thought necessary to go into it, and thereupon to open professorships, that he may be taken into your service.

"When you have heard him, and duly considered what he has to lay before you, you will be best able to judge in what manner you can serve the public, the institution, and the particular design now recommended to you.

"I am, Gentlemen, your very affectionate friend,
"THOMAS PENN.

"To the Trustees of the College, &c. of Philadelphia."
London, Feb. 15*th*, 1765.

There was also another letter from James Hamilton and the Rev. Mr. Peters, to the same effect. Dr. Morgan also handed in a "written proposal, setting forth his plan, and intimating his desire to be appointed Professor of the Theory and Practice of Physic."

"The above letters and proposals being duly weighed, and the trustees entertaining a high sense of Dr. Morgan's abilities, and the honours paid to him by different learned bodies and societies in Europe, they unanimously appointed him Professor of the Theory and Practice of Physic in this College."

Dr. Shippen arrived from Europe in May, 1762, as we find by reference to the eulogium pronounced by the late Dr. Wistar, before the college of physicians. That professor states, "that when Dr. Fothergill's anatomical paintings and casts came over as a present to the Pennsylvania Hospital,* that gentleman (Dr. Fothergill) mentioned them in a letter to Mr. James Pemberton," by which it appeared that he expected Dr. Shippen would explain them. He mentions Shippen's intention to give lectures; and says, "that he is well qualified; that he will soon be followed by an able assistant, Dr. John Morgan; and that if countenanced by the legislature, they will be very useful and erect a school of medicine." * * * "In the autumn of the same year, (1762) as soon as the season permitted, his first course of anatomy began. The introductory lecture was delivered in one of the large apartments of the State House; and many of the gentlemen of Philadelphia heard it with pleasure, but the number of students who attended his course, amounted only to twelve. *Such was the origin of our medical school.*"†

Dr. Morgan was appointed 3rd May, 1765. The minutes of the college contain the following letter from Dr. Shippen, which we shall copy in this place, that our readers may judge for themselves, after having all the elements laid before them.

The minutes are as follows:

"Sept. 23, 1765. A special meeting."

After other business was transacted, "Dr. William Shippen, jr. applied by letter as follows," viz.

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* They are now kept in the Museum of the University, to which, with the rest of the collection, they were generously given by the managers of the hospital.

† Eulogium, p. 25.

"To the trustees of the college, &c.

"The institution of Medical Schools in this country has been a favourite object of my attention for seven years past, and it is three years since I proposed the expediency and practicability of teaching medicine in all its branches in this city, in a public oration, read at the State House, introductory to my first course of anatomy.

"I should long since have sought the patronage of the trustees of this college, but waited to be joined by Dr. Morgan, to whom I first communicated my plan in England, and who promised to unite with me in every scheme we might think necessary for the execution of so important a point. I am pleased, however, to hear that you, gentlemen, on being applied to by Dr. Morgan, have taken the plan under your protection, and have appointed that gentleman a Professor of Medicine.

"A professorship of Anatomy and Surgery will be gratefully accepted by, gentlemen, your most obedient and very humble servant,

Phila. 17th Sept. 1765. "WILLIAM SHIPPEN, Jr."

"Which letter being read, the trustees, by a unanimous vote, appointed Dr. Shippen Professor of Anatomy and Surgery in this Seminary."

We have found a curious advertisement by Dr. Shippen, in an old file of the Pennsylvania Gazette, and shall not apologize for presenting it to our readers, since it is an historical document in relation to the rise of the obstetric art in America, and a manifest instance of that energy and decision which characterized him throughout.

"Dr. Shippen, Jun., having been lately called to the assistance of a number of women in the country in difficult labours, most of which were made so by the unskilful old women about them; the poor women have suffered extremely and the little ones were entirely destroyed, whose lives might have been easily saved by proper management; and being informed of several desperate cases in the different neighbourhoods which had proved fatal to the mothers, as well as their infants, and were attended with the most painful circumstances, too dismal to be related; he thought it his duty immediately to begin his intended course of lectures on midwifery, and has prepared a proper apparatus for that purpose, in order to instruct those women who have had virtue enough to own their ignorance, and apply for instruction, as well as all those young gentlemen, now engaged in the study of that useful and necessary branch of surgery, who are taking pains to qualify themselves to practise in different parts of the country, with safety and advantage to their fellow creatures."

"The Doctor proposes to begin his course as soon as a number of pupils sufficient to defray the necessary expense shall apply. A course will consist of about twenty lectures, in which he will treat of that part of anatomy which is necessary to understand that branch, explain all cases in midwifery, natural, difficult, and præternatural, and give directions how to treat them with safety to the mother and child; describe the diseases incident to women and children in the month, and direct to proper remedies; will take occasion during the course, to explain and apply those curious anatomical plates, and casts of the gravid uterus at the hospital, and conclude the whole with cautions against the dangerous and cruel use of instruments."

"In order to make the course more perfect, a convenient lodging is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessaries on these occasions, to be under the care of a sober, honest matron, well acquainted with lying-in women, employed by the Doctor for that purpose. Each pupil to attend two courses at least, for which he is to pay five guineas. Perpetual pupils to pay ten guineas. The female pupils to be taught privately, and assisted at any of their private labours when necessary. The doctor may be spoke with at his house in Front-street, every morning, between the hours of 6 and 9, or at his office, in Letitia Court, every evening."

Dr. SHIPPEN had lectured on anatomy in 1762, 63, 64, and, as we here perceive, announced, in January, '65, a course of midwifery on a plan which deserves the character of great boldness, considering the circumstances of the population at that period, when male accoucheurs were never employed, except in difficult parturition, after the efforts of the priestesses of Lucina had been found unavailing; and we may remark by the way that it is asserted by Dr. WISTAR in his eulogium, that Dr. SHIPPEN, by his good conduct, did remove the prejudice against the employment of male practitioners in the first instance, and in the course of ten years obtained a full employment in midwifery practice. But to return from this digression. Dr. MORGAN arrived here in April 1765; on the 3d of May was elected professor of Theory and Practice, and delivered his discourse on the 30th and 31st of the same month; but Dr. SHIPPEN was not appointed to his chair until September of the same year, full three months after the foundation of the school had been established in a regular collegiate form by the active zeal of his rival.

What definite and precise intentions may have occupied SHIPPEN's mind, we cannot now know. It is probable that he only designed a private establishment, under the patronage of the college, for he does, when asserting that he and MORGAN had engaged to assist each other, mention, "that he should long since have sought their patronage," &c. It is manifest, that there was some want of candour on the part of MORGAN, when he adverts so slightly to SHIPPEN's private establishment. Be this as it may, it is, certain that a jealousy and ill-will soon arose between them, and occasioned a breach which, so far as we know, was never completely removed; and must have been much aggravated by **Morgan**'s cruel removal from the director generalship of the medical department of the army, by congress, in 1776.

This act occasioned the publication of his pamphlet, called "A Vindication," &c. the title of which is found at the head of our article. We shall not follow them in their unhappiness, occasioned by these dissensions; the evil which they thought of each other died with their bodies; the lasting benefits they conferred on science are extending farther and wider over their common country. Dr. **Morgan** must be admitted to be the founder of the School of Philadelphia, neither will it be disputed that he was fully and ably seconded by Dr. **Shippen**, without whose happy genius and resources he might in vain have attempted to rear that noble fabric.

On the 26th Nov. 1766, Dr. **Thomas Bond**, whose name we have often heard reverently pronounced by Dr. **Rush**, gave an introductory lecture to a course of clinical lectures in the Pennsylvania hospital, which, our readers will perceive, forms an original article of the present number of this journal. Dr. **Bond**, however, was never appointed to a professorship in the college.

Such was the state of the enterprise till January 26, 1768, when Dr. **Adam Kuhn**, the disciple of **Linnæus**, and the friend of **Wistar**, was appointed to the chair of Materia Medica and Botany.

At the Commencement, in the year 1768, the degree of Bachelor of Medicine was conferred on **John Archer**, **Benjamin Cowell**, **Samuel Duffield**, **Jonathan Elmer**, **Humphrey Fullerton**, **David Jackson**, **John Lawrence**, **Jonathan Potts**, **James Tilton**, and **Nicholas Way**. These ten bachelors were the first persons who ever received medical honours in an American institution.*

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* We are indebted to Dr. Thomas T. Hewson, for the following extract of a letter addressed to his father, Mr. Wm. Hewson, by Dr. Morgan—the date is,

Philadelphia, Nov. 20, 1767.

I have twenty pupils this year, at about five guineas each: next year we shall confer the degree of Bachelor in Physic on several of them, and that of Doctor, in three years after. New York has copied after us, and have six Professors; three of whom you know, to wit: Bard, Professor of Physic; Tennent, of Midwifery; and Smith, in Chemistry; besides whom, are Dr. Jones, Professor of Surgery; Middleton, of Physiology; and Clossy, of

It was determined in May, (12th) 1767, that,

1. "*For a Bachelor's degree in Physic*, such students as have not taken a degree in the arts in any college, shall, before receiving a degree in physic, satisfy the Trustees and Professors of this college, of their knowledge in the *Latin language*, and such branches of Mathematics, Natural and Experimental Philosophy, as shall be judged requisite to a medical education. 2. Each student shall take at least one course in Anatomy, Materia Medica, Chemistry, Theory and Practice of Physic, and Clinical Lectures; and shall attend the Practice of the Pennsylvania hospital, for one year; and may then be admitted to a public examination for a Bachelor's degree, provided that on a previous private examination by the Medical Trustees and Professors, and such other Trustees and Professors as choose to attend, he shall be judged fit for a public examination, without attending any more courses in the medical school. 3. It is further required, that each student, previous to the Bachelor's degree, shall have served a sufficient apprenticeship to some reputable practitioner in Physic, and be able to make it appear, that he has a general knowledge in Pharmacy.

"*Qualifications for a Doctor's degree in Physic.*—It is required for this degree, that at least three years shall have intervened, from the time of taking the Bachelor's degree, and that the candidate be full 24 years of age; who shall also write and defend a Thesis publicly, in college, unless he should be beyond seas, or so remote on the continent of America as not to be able to attend without manifest inconvenience; in which case, on sending a written Thesis, such as shall be approved of by the college, the candidate may receive his Doctor's degree, and his Thesis is to be printed and published at his own expense."—*Minutes, &c.*

On the 1st of August, 1769, Dr. Benjamin Rush, to mention whose name is to declare what an accession of courage, talents and virtue was afforded to the cause, received the appointment of the Professorship of Chemistry; and we accordingly find, that in the same month, a full course of lectures was announced, as follows, in an advertisement, for a copy of which we are indebted to a friend.

Anatomy. Time will show in what light we are to consider this rivalship; for my part, I do not seem to be under great apprehensions. Dr. Shippen is Professor of Anatomy and Surgery with us; Dr. Bond gives Clinical Lectures in the hospital, and myself give lectures on the Theory and Practice of Medicine, and on Chemistry, till Mr. Rush returns to engage in Chemistry; and we hope Kuhn will be here next year, for Materia Medica and Botany: and a course of lectures, with experiments in Natural Philosophy, are given by our Provost to the medical pupils. Thus you see how we go on. My compliments to Dr. Hunter, and all friends. I remain, in haste, dear sir,

Your ever affectionate friend,

J. MORGAN.

"*College of Philadelphia, Aug.* 14, 1769.

"By the election of Dr. Rush, to be Professor of Chemistry in this college, the different Professorships originally intended in the Medical School are now filled up; and a complete course of lectures in the different branches of Medicine will be opened on Wednesday, the first day of November, viz.

Anatomy, Surgery and Midwifery, by	Dr. Shippen.
Chemistry,	Dr. Rush.
Materia Medica,	Dr. Kuhn.
Theory and Practice of Medicine,	Dr. Morgan.
Clinical Lectures at the Pennsylvania hospital,	Dr. Bond.

"Dr. Smith, Provost of the college, will give a course of lectures on Natural and Experimental Philosophy, for the benefit of the medical students. Dr. Kuhn will also give a course of lectures on Botany; to begin as soon as the season permits.

N. B. The Hon. Thos. Penn, Esq., one of the proprietors of this province, hath sent to the college, by Dr. Rush, a complete apparatus for chemical experiments."

Such was the inception of an enterprize, which, after the lapse of sixty-two years, has produced in the country, near twenty medical institutions for teaching the science; such was the fountain which, supplied by Morgan's genius and perseverance, now effuses its fertilizing streams of knowledge over a continent: Medical Schools flourish where the Indian cabin was, in his day, shaded by the primæval forest; and our young men, instead of crossing the Atlantic ocean to seek for the Temple of Apollo, now climb the Alleghany, to find his fane under the setting sun. The diligence with which medicine is taught, is attested annually by more than five hundred graduates, in twenty institutions, which are capable of imparting the most wholesome instruction to the rising and studious youth. Numerous periodical works, devoted to the improvement of the science, constantly tend to the elevation of the professional character and estimation; while societies without number, and, in many States, public laws sanction and uphold the philosophical cultivation of medicine, and reprobate and condemn the vile attempts of the empiric.

We will not be understood as asserting, that we are indebted for all these good things to Dr. Morgan: we doubt not, the United States would have had Medical Schools long ere the present day, had he never existed; but what gratitude, what perception of departed excellence, or admiration for living talents, can he possess, who would reason and feel in this manner! Dr. Morgan was the FOUNDER of American Medicine: and he who in Greece and Rome would have had statues of brass and marble voted to his memory, has, in the one third part of a century, gone out of remembrance so completely, that of the many hundreds who partake of the benefits of his school, very few have ever heard his name.

Let us cite the following, to show how, with a spirit which seems to have transported him into distant futurity, he addressed the Trustees of the college in an appeal, which might almost be called prophetic.

> "Perhaps this medical institution, the first of its kind in America, though small in its beginning, may receive a constant accession of strength, and annually exert new vigour. It may collect a number of young persons, of more than ordinary abilities, and so improve their knowledge as to spread its reputation to distant parts. By sending those abroad duly qualified, or by exciting an emulation amongst men of parts and literature, it may give birth to other useful institutions of a similar nature, or occasional rise, by its example, to numerous societies of different kinds calculated to spread the light of knowledge through the whole American continent, wherever inhabited."

Speaking of the love of fame, and a laudable ambition in connexion with this school, he pours forth the following high toned sentiments in a strain of rich and manly eloquence.

> "These passions have, in all ages, fired the souls of heroes, of patriots, lovers of science; have made them renowned in war, eminent in government and peace, justly celebrated for the improvement of polite and useful knowledge. They have powerfully influenced the perfection of arts, the advancement of commerce, and the prosperity of cities. They have heightened the character of particular people to such a degree, as to make them regarded by other countries with admiration and esteem. Such I hope will be the consequence of your patronizing medical science in this place."
>
> "The difficulties of executing the proposed plan are inferior, far inferior to the glory of being first in such an undertaking. What grand enterprise was ever accomplished without any difficulties? If we have but resolution to master those which obstruct our design, they will only serve to heighten the lustre of its achievement. Seize then the opportunity of executing a scheme so glorious in itself, and of such importance to this place; as you have given a beginning to the task, I doubt not to see it fully perfected in due time."

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"Oh! let it never be said in this city, or in this province, so happy in its climate, and its soil, where commerce has long flourished and plenty smiled, that science, the amiable daughter of liberty and sister of opulence, droops her languid head, or follows behind with a slow unequal pace. I pronounce with confidence this shall not be the case; but, under your protection, every useful kind of learning shall here fix a favourite seat, and shine forth in meridian splendour. To accomplish which may every heart and every hand be firmly united.

'Hoc opus, hoc studium parvi properemus et ampli,
Si patriæ volumus, si nobis vivere cari."—*Horace.*

We shall here close the "Address," with the remark that it ought not to be suffered to sink into oblivion, as is likely to be the case very soon from its rarity. If the London college of physicians thought it conducive to their glory to give to the learned world a splendid edition of the works of their immortal countryman WILLIAM HARVEY, what honour might not accrue to the directors of our medical school by a similar mark of respect to their father and founder! Copies of the address ought to be multiplied. It is among the most important of our historical documents. And among 15,000 physicians in the United States, how many know that it ever existed?

Dr. MORGAN's reputation preceded him, and the most extravagant expectations were formed of his healing powers, among the people of his native city. A venerable gentleman who knew him afterwards very intimately, told me that when he was first pointed out to him in the street, he considered it as a high privilege to say, "I have seen him." This eclat gave him at once an introduction into the best practice, and he acquired a large share of business; but the efforts he made to separate the practice from the pharmaceutical part of the profession gave great offence. Still, he persevered in them; and, as he informs us, received fees in cash agreeably to the custom of the London phycisians. His early cotemporaries, the BONDS, REDMAN, CADWALLADER, SHIPPEN, &c., would not fall into his views, and it was not until the beginning of the revolutionary war that they were adopted. This took place on the arrival of Dr. JOHN JONES, who coming here from New York, brought no medicines with him, and being soon afterwards invited to prescribe, sent his prescriptions to a druggist. Finding it to answer very well, he never took a *shop;*

as the doctor was physician to both **Washington** and **Franklin**, he came rapidly into esteem. Dr. **Chovet**, afterwards a very popular physician, came here also from the West Indies, about the same period, and adopted Dr. **Jones'** plan; the other physicians seeing the manifest advantages enjoyed by these gentlemen, adopted the same practice, and now no Philadelphia practitioner keeps an assortment of medicines for his own use, if we are correctly informed.

Had Dr. **Morgan** succeeded in his design of introducing with the present usages of practice, his plan of receiving fees in hand, thereby obviating the necessity of making book charges, which he says, "is never done in any liberal profession," he would have left an heir-ship of the highest value to his successors; valuable, not merely in regard to its pecuniary features, but as abolishing the means, and the incitement to a great many acts, which always, and inevitably tend to depress the profession far below the standard of its intrinsic dignity and relative importance to other professions and callings. If the bar owes its ampler success and respect to any one circumstance, it is, to its rules on the subject of compensation—certainly not to its charities, or to constant obtrusion into the business and bosoms of the people. In our sister city of New York, we believe that the plan of dispensing from the physician's own supplies is still adhered to; with what benefits let her physicians decide. If Philadelphia presents advantages over her sister cities in point of medical institutions and professional usages; how much of these are owing to the entire separation of the distinct avocations of the physician and the apothecary? Unquestionably our medicines are more carefully and elegantly prepared than they can be, where only a modicum of pharmaceutical skill and aptness can be acquired. Our **Smiths**, **Browns**, **Griffiths**, and **Durands**, and many others, equally distinguished and to be relied on, for the perfection and science exhibited in their establishments, supply us with the choicest productions of the Parisian and English laboratories, with a celerity and in a variety which leave us nothing to desire on that head; while, freed from the embarrassments of the plaster pan and spatula, we have more time to devote to our patients, and more leisure for our studies.

We are fully aware of the difficulty, nay, the impossibility of separating the offices of physician and apothecary in country practice, or even in that of the small towns of the United States, whence is derived a manifest augmentation of those onerous and responsible duties to which a country practice is necessarily subjected. It would be overweening and ridiculous, to expect a division of the professions among that active and valuable class of our brethren; we only regret that they have a harder task than those who reside in the midst of a dense population: but, in our larger cities, where abundant facilities are offered for effecting the division, we own we are surprised that it does not take place. It is very questionable whether the emoluments of the profession in those cities, where medicines are dispensed by the physicians, exceed those of gentlemen of the same standing, where the physician and apothecary exercise separate and independent functions. At least, there can be no doubt as to where the greatest comfort is to be found.

To MORGAN we consider ourselves indebted for the separation of these professions; and if so, even our College of Pharmacy may be included in the list of benefits conferred by him on his country. That institution may be regarded as of the highest importance, not only in view of its scientific merits, but as the future and principal agent in the suppression of quackery, the growing vice of the United States, most of the emoluments of which pass through the hands of druggists and apothecaries. Should the establishment flourish as it may be expected to do, it will not fail, as it raises higher and higher the ethics of the profession, to engage apothecaries here in a fixed opposition to those scandalous impositions on the public credulity, which, as they would belie nature herself, as well as all philosophy, experience and observation, so they ought to be considered an unworthy source of riches to an educated and high minded class of people. We hope even to see the day when the College of Pharmacy shall attract to its lecture rooms, the worthy young men who shall enter on that business in the most distant States of the Union; and then we may expect to be no longer wounded and grieved with the display of articles, which, either possessing no active properties, abuse the confidence of the ignorant when needing the most powerful aid, or, on the other hand, precipitate, by their unsuspected violence, the morbid tendencies of an otherwise curable affection.

Dr. MORGAN continued to practise physic until the revolutionary war broke out, and was then appointed director general of military hospitals, and physician in chief to the American army. He joined General Washington at Cambridge, was with the army at Long Island, and present at the battle of White Plains. It is impossible not to admit, after a careful perusal of his Vindication, the title of which is to be found at the beginning of this article, that he was a zealous officer, and faithful in the discharge of his public duty; yet great clamours arose against him among the regimental surgeons, whom he accuses of the basest motives, (and in some instances convicts them,) of peculation and fraud. After struggling with many difficulties, arising out of the want of hospital stores of every description,* the wretched arrangements of his department, which never was half strong enough, and the bitter opposition of his enemies, Dr. MORGAN, refusing to resign, was removed by Congress, and Dr. SHIPPEN was appointed in his place. We care not to rake up the ashes of discord, by an historical detail of the progress of the quarrel, which these early friends and coadjutors, in establishing our school, fought out in the public papers. We may, however, remark, that their several publications throw much light on the medical history of the American war. The Vindication is a pamphlet which he published soon after Dr. SHIPPEN's appointment.

> "Out of respect to Congress," says he, "I have thus long deferred my application to the public. I can no longer consistently with my reputation defer it. *The wounds that are given by the envenomed tongue of calumny, are deeper and more fatal than the sword; they destroy what is dearer than life, reputation and peace of mind;* blemishes on a man's public character soon fester, and, if not speedily removed, will contaminate every thing about him, and infect the very air he breathes."

MORGAN had a soul of the most exquisite sensibility. The shock which he received by his dismission from the army, (most unjustly and cruelly,) carried its benumbing influence through the remainder of his life.

He gradually became poor, and withdrew from the public eye.

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* He sent, on one occasion, a surgeon to Philadelphia, to get some instruments made, but there was only one cutler here; and his time was engaged by the Congress, so that MORGAN could get nothing done.

His residence was on the south side of Spruce-street, near the corner of Third, westward. Here he passed his time in study and writing. He died in the month of October, 1789, and was buried in St. Peter's ground, not far from the west door of the church, as I have been informed, but I can find no trace of his place of rest. He was a small, thin man, of very polished manners; he was a close student, and must have had a most familiar acquaintance with the Roman classics, which he quotes on all occasions with great propriety. He complains of the loss of his manuscripts, the labour of ten years, by the enemy at Bordentown. Dr. MORGAN married a sister of FRANCIS HOPKINSON, but died without issue.

We have brought to a close our meagre sketch of this distinguished Physician, with deep regrets for the scantiness of our materials; we shall look with interest for his Biography in the work lately announced by the venerable Dr. THATCHER, of Massachusetts.

BIOGRAPHICAL NOTICE.

ARTICLE XV.—*Biographical Notice of* Dr. JAMES HUNTER EWING, M. D. By D. THEODORE COXE, M. D.

THE insatiable archer has again invaded the ranks of the Medical profession, and torn from our embraces a valuable friend. The champions even of the human race, whose lives are devoted in combating the attacks of the last great enemy, and who sometimes seem to rob him of the victory, sooner or later are themselves found vulnerable, and bow to his superior might. Two of his latest victims in our immediate circle,* were taken from us full of years and fame, leaving an example to their juniors, worthy of imitation: this time, alas! he has levelled his unerring dart at one in the spring time of life; in the commencement of a career, which bid fair to be one of great usefulness and honour. When, and on whom the blow will next fall, is beyond the reach of mortal ken—may the victim be prepared!

Physicians being looked upon as public characters, it has been usual, and properly so, to preserve a brief record of their lives; and though, as in the present instance, the short period of their career should not have made it very eventful, it still becomes their surviving brethren to pay to their memory a tribute of affection and respect.

JAMES HUNTER EWING was born April 2, 1798, at Trenton, New Jersey. His early education was received at several places, one of which was the Grammar School of the University of Pennsylvania; and we find him in 1815 entering the Sophomore class of Nassau Hall, at Princeton, N. J. Here he remained three years, pursuing with ardour those studies which the college discipline required, and maintaining throughout, by his industry and perseverance, a high standing among his classmates. His correct deportment, urbane manners, and obliging disposition, rendered him a general favourite, not only with his fellow students, but also with the officers of college. This is rare praise, as we not unfrequently find, that in proportion as a young man rises in the estimation of his preceptors, in that proportion does he lose the cordial confidence of his immediate companions. He was firm and independent in thought, word and deed; but so open was his heart, so frank his disposition and manners, and so mild and even his temper, that though frequently a successful rival, awakening sentiments of emulation in the bosoms of his companions, he could never become the object of their envy or dislike. He finished his collegiate course in 1818, with an oration at the Commencement, upon the Fine Arts. We may here mention, that he early joined the Cliosophic Society of Nassau Hall, was a zealous and faithful member while in college, and continued, till the hour of his death, to retain for it a lively interest.

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* Dr. Samuel Powel Griffitts, and Dr. John A. Monges.

EWING now entered immediately upon the study of the noble profession of Medicine, and still displayed that industry and ardour he had ever shown in the previous periods of his life. He regularly attended the lectures in the distinguished Medical School of this city—sought instruction from the clinical remarks of eminent physicians in our public Infirmaries—diligently perused the standard works of his profession, and joined private examining clubs among his fellow students. To render himself still further qualified for the practice of the honourable, but arduous and responsible profession he had chosen, he in 1820 entered the Alms House as House-student, and performed the duties of his station with exemplary fidelity. Even at this time, he displayed that discrimination and judgment which were afterwards his distinguishing characteristics.

It was during his residence in this institution, that he was called upon by the Professors of the Medical School to undergo an examination for his degree of Doctor of Medicine. He was at this time just convalescent from a very violent attack of fever of the typhoid character. In this interesting state of extreme prostration, his studies having been for some time abandoned, and his mind weakened by disease, he passed through an ordeal, at all times severe, with satisfaction to his professors; and shortly after received a recompense for all his sufferings in the honourable title of M. D. His thesis was upon Amaurosis, and is a well written production.

Dr. Ewing commenced the practice of his profession among the Germans in Lehigh Co. Pa. where he remained until the fall of 1825, when he removed to Philadelphia, accompanied by the regrets and good wishes of his patients and friends, who testified the same in a letter given him at his departure.

Several circumstances contributing to his success in practice, his progress was rapid, beyond the usual advancement of professional characters, especially where much competition exists. In his manners he was kind and attentive to all, aware that an ungracious temper, a want of tenderness or courtesy may defeat the prospects of a physician otherwise fully instructed in what belongs to his profession.

Though devoting most of his time to the study of that profession, he did not think that every hour should, if it could, be wholly given up to it. The *time* employed in study is indeed far less important than the *attention* given to it, and "it is wise that the student, by an intermixture of literary studies with those of a more strictly professional character, and by a participation in the amusements of good society, should endeavour not merely to relieve and invigorate his mind, but to acquire that general information, and those manners, which will make him not only more welcome in the higher classes of society, but more useful in all."

In the month of June, 1826, while on a tour to the northward, he was arrested in his progress at Poughkeepsie, N. Y. by the rupture of a blood-vessel in his lungs. He recovered, however, from this attack, returned home, and subsequently enjoyed his usual health, until about three weeks before his death, when a sudden recurrence of hæmorrhage from the lungs again prostrated him upon a bed of sickness. During the period that elapsed between this and the hour of his death, he bore his sufferings with christian fortitude and resignation. Medical skill and learning were exerted in vain—the disease advanced with rapid strides—and on the 28th of March, 1827, he breathed his last. Owing to unfortunate, but natural prejudices, no autopsic examination was permitted to be made, and there was consequently no confirmation of the conjecture that the lungs were in an engorged and apoplectic condition.

His remains were followed to the grave by a large concourse of mourning relatives and friends; and an appropriate and affectionate discourse pronounced by the Rev. Dr. Wilson.

The character of Dr. Ewing may have perhaps been sufficiently gathered from the brief outline we have thus given of his career, and we may therefore sum up our mournful task in the words of an obituary notice in a daily paper of this city.—U. S. Gaz. April 2, 1827.

"His talents as a physician were of the highest order. His disposition was soothing and gentle. In him the poor found a firm and generous friend; and all connected with him in business, testify to his honour and worth, and regret the loss of one so generally esteemed. As a son and a brother, he was dutiful, kind and affectionate—as a friend, sincere and generous—as a man, honourable and just—and those who esteemed him for his probity, loved him for his urbanity. Such was Dr. Ewing: though bidding an everlasting farewell to affectionate relations, numerous friends, and all the benefits of fortune, yet he yielded up his life happy and contented, feeling a security in his dying moments of tasting those joys which fame and fortune cannot give."

BIBLIOGRAPHICAL NOTICES.

Article XVI.—*Annales de la Médecine Physiologique.* Par F. J. V. Broussais, Chevalier de la Legion d'Honneur, &c. &c. &c. Tome 9. A Paris, 1826.

We have sketched a running catalogue of a portion of the papers contained in the journal above cited during part of the last year, with the view of affording our readers the means of estimating its nature and character.

Every number is ushered in by a "clinique médico-chirurgicale;" which frequently begins with a few observations on the reigning diseases, or on the epidemical constitution of the atmosphere. After this, in the current volume, follows the case of the patriotic General Foy, one of the leading liberals of the French Chamber of Deputies. It was an indisposition of long standing. A hypertrophy or active aneurism of the heart existed; accompanied with inflammation and numerous ulcerations of the arch of the aorta, as well as a diseased condition of the liver and one kidney. These were thought by M. Broussais to have been produced by a chronic gastro-duodenitis, aggravated by the general's political labours and studies; and in the decline they produced a similar affection.

M. Clevers relates a case, in which a gastro-entero-cephalitic fever had been kept up for a length of time, and brought to great violence, by the injudicious administration of bark, emetics, cathartics, &c.; and had been deemed intermittent, while, in the narrator's judgment, the paroxysms or exacerbations were only produced by the stimulating substances given. Under a treatment of leeches to the head, and to a swelled and tender spot in the abdomen, of ice to the head, emollient fomentations to the abdomen, injections of flaxseed tea, pediluvia, and orange juice drink; the patient became a great deal better, and appeared getting well. A relapse was occasioned by the menstrual excitement and by imprudent excess in food; from which, however, she ultimately recovered.

M. Clevers thinks that frequently the impatience of the physician does not allow him to await the definitive cure of a phlegmasia which he has attacked by bleedings, that he deems himself necessitated to employ purgatives and tonics to promote the return of appetite; and that he thus reproduces the fever, calms it again by bleeding, general or local, and again reproduces it, finally adding the crown to the misfortunes of his patient by administering the bark.

M. Denis de Commercy describes a case of chronic inflammation of the pancreas. The patient had been subject to uterine hæmorrhagy. The symptoms were, pain in the epigastrium, a pulsating tumour situated between the umbilicus and the left false ribs, and vomitings; her sufferings being aggravated during the hæmorrhagic effort. The pancreas was found enlarged, and compressing the duodenum to one-third of its diameter. The texture of the gland was not materially altered in appearance; but was almost as hard as cartilage. The canalis choledochus was contracted so as scarcely to admit a fine probe; and the pains in the epigastrium were referred to the gall-bladder, which was enlarged, and excessively distended with bile. No absolute suppression of this fluid had existed.

M. Broussais thinks that a gastro-enteritis was the original cause of the complaint, but that during all the middle of the case, the stomach was in an asthenic state.

In his clinique for the February number, M. Broussais states, that the mortality was great among the malignant fevers of drunkards, even in a very few days, with acute fever, delirium, trembling, red and pointed tongue, red eyes, &c. These cases he generally found affording numerous ulcerations towards the lower end of the jejunum, with an unusual paleness in the inner surface of the stomach; and often with softening. Were there no instances of the peculiar *delirium tremens* among these?

M. Chatelain, of Toulon, an apothecary, believes that *leeches* are best kept in earthen or stone jars, one-third filled with clay, extending to near the brim, the clay to be kept moist and changed twice a year. They deposit eggs, at Toulon, from the 15th of July to the end of August; and the young are easily raised in clay. Chlorine, ammonia, tobacco-smoke, and camphor kill them.

Dr. Angelot thinks that, though the antiphlogistic treatment of *marasmus* is the "only rational one," (p. 148,) yet that by tonics is more *successful* in cases of misery, want of food, cold, &c., from poverty. He has cured a case, in which the tumefied mesenteric ganglions were distinctly felt through the sides of the abdomen, by *syrup of iodine*, after arresting the diarrhœa by leeches.

At p. 176, is a discussion with "Sir Granville," (is this Dr. A. B. Granville?) of London, relative to a charge by Dr. Broussais, against the English physicians, of being empirics. The English antagonist replies, that he and his countrymen do pay great regard to precedent; and conceives that this has made them more successful than the French. This is received as an acknowledgment of the imputation.

M. Chardon, of Lyons, treats a case of ileus, in which an intussusception was thought to be proved, by leeches, warm baths, enemata, and oil of almonds; but the greatest effect by far, viz. an almost entire relief the same night, followed the use of prussic acid. From this an argument may be drawn in favour of the supposition that the nervous system is more concerned in such cases than is sometimes supposed.

It appears from a table, in the March number, that in the French military hospital at Madrid, in the year 1825, there were 48 deaths among 1554, or about 3 per cent.; a very small mortality indeed. Among these there were only 4 per cent. of fevers. This success is ascribed to the Broussaian treatment adopted there.

A case of *chronic pleurisy* had been mistaken by several physicians for a pulmonary consumption; and was cured by Dr. TETU, by means of a milk diet, and the use of setons on the thorax. It affords a fine triumph of the judicious use of revulsives; and may serve to indicate the usefulness of that close diagnosis for which the French are so remarkable. We well remember a case treated, to the patient's dying hour, as phthisis pulmonalis, which, on examination, manifested one side of the thorax completely distended with serum and lymph, while the lung was compressed to the thickness of a finger.

M. FABRE furnishes a case in which a man affected with fever (characterized by chills, lassitude, head-ach, pain at the epigastrium, nausea, and intense thirst) had *thirty* grains of tartar emetic administered to him, and twelve more prescribed but not taken, all in three days, as an application of the Italian doctrine of contra-stimulism. The most violent symptoms were produced; and the patient appeared in imminent risk of his life; when M. FABRE recovered him by the use of diluents, and leeches to the stomach.

M. DOMMANGEL, attached to the French army in Spain, has met with such unexampled improvement in the success of his practice, from the greater use of *leeches*, that he has written a memoir on the management of these animals, detailing a number of his experiments. He finds that leeches may be very well freed from the blood which they have swallowed, either by salt applied to their mouths, or by punctures near the tail, from which the blood is to be pressed with the fingers; but that these modes are too troublesome to be adopted where any considerable number of these animals are employed; and that it succeeds much better simply to leave them to themselves, in reservoirs half filled with clay or "terre glaise," with tufts of flag and gladiolus growing in them. By this method, full grown leeches soon become able to bite a second time; and the process is much more favourable to their health.

He employed hogsheads, but recommends a large oblong wooden box, divided into compartments, and furnished at one end with a hogshead of water, and stop cocks to keep up a dribbling stream through this "artificial marsh."

In ten and a half months he used 30,250 leeches in his hospital. He computes that a "marsh" of twenty-four feet by three feet wide and deep, is sufficient for a hospital. If we understand him correctly, he expects them to bite a second, and third time, or oftener, at intervals of only two weeks.

At p. 526, the same physician reports his success for the year 1825; having lost, if we understand the table, only three patients, in 1118, or little more than *one-fourth of one per cent.* M. Renaty, of Rennes, under less favourable circumstances, reports, in three months, 584 cases, among which he lost fourteen, or *two and a half per cent.*

M. Richond gives six cases of *gonorrhœa,* cured by iodine and leeches, averaging seventeen days in the treatment.

The above glance may serve to show of what materials the *Annales* are composed. Of their influence, aided as they are by the constant running comments of the celebrated genius who edits them, we may easily judge. We must add, however, that our selections have been made at random; and of course, a large amount of equally interesting matter has been left behind. C.

Article XVII.—*The Anatomy of the Brain, with a general view of the Nervous System.* By G. Spurzheim, M. D. of the Universities of Vienna and Paris, licentiate of the Royal College, London. Translated from the unpublished French MS. by R. Willis. With eleven plates. London, 1826.

We are highly gratified to see an account of Dr. Spurzheim's discoveries and views in the anatomy of the brain, in an English dress, and in a cheaper and more accessible form than in his large work. It is a pledge that the errors and misrepresentations, on this point, of an early Edinburgh Review, are about to lose their last hold on the public mind, and the labours of this distinguished votary of science to receive an approximation to their just degree of credit; and it is all the more welcome that it comes from his own hand. Although, to many, leisure, opportunity, or industry will still be wanting for the investigation of the charge of plagiarism from Reil and others, yet with regard to the correctness of his own descriptions, any one will now be a sufficient judge who can obtain a brain to dissect, and will use the requisite care. The advantages which the volume before us confers for studying the anatomy of the brain, are of too obvious a nature to require a description.

We notice, in the present edition, an error of the press, or rather of the graver, which, though it seems of slight consequence, must present real embarrassment to the student. In several of the figures copied from Serres, the lobes of the brain are marked with the numbers by which the latter writer refers to his own plates; these not having been altered so as to accommodate them to Dr. Spurzheim's references. As these occur among the brains of fishes, the error is of a less radical importance, though it is a pity to confuse the conceptions of the reader on this minor, but still interesting subject.

Dr. S. complains of unjust treatment from some of the learned--

"The influence our labours have had on the study of the nervous system is incontestible. To be convinced of this, it is enough to examine the state of knowledge in regard to the anatomy, physiology, and pathology of the brain and spinal marrow, when Dr. GALL and I developed our ideas on these matters, whether it was by teaching orally, by dissecting publicly, or by means of our writings. I confess there is great satisfaction in the consciousness of having contributed to the important reform that has been effected in regard to the nervous system. I am only sorry to observe, that many of our ideas are appropriated by the authors of recent publications, without any mention of the source whence they were derived, or of the individuals who first struck them out, or reduced them to certainty by direct proofs. We are commonly enough mentioned, it is true, when such of our assertions as appear weak are the subjects of criticism, but our names are kept in the back ground when points of importance become the matter of discussion." "Further, the mass of facts cited, the number of dissections made, ought never to impose on us, nor be made a means of concealing the truth." "Anatomists and physiologists had certainly looked upon heads without number; but, before Dr. GALL's appearance, had failed to discover the seat of a single cerebral organ. A solitary individual, a beggar, enabled him to detect the organ of self-esteem, precisely as the fall of a single apple revealed the law of gravitation to NEWTON. Anatomists had seen many human brains without remarking any differences among them; these, however, are, to say the least, as constant as similarities. The point that essentially interests science, is *the discovery of the truth;* and this is then *confirmed* and established by all ulterior observations."

Whatever justice there may be in the application of these remarks which Dr. SPURZHEIM makes to some distinguished living names, his lasting fame will certainly be sufficient to admit of such deductions. The historian of science will always be forced to admit that our author, and his equally celebrated preceptor and coadjutor, have given the primary and effective impulse to the investigations which are now so ardently and usefully proceeding, for the elucidation of the structure and functions of the brain; and that such names as REIL, TIEDEMANN, SERRES, JULIUS CLOQUET, &c. &c. are actively engaged in repeating, verifying, and occasionally extending opinions, which, when first advanced by the physicians from Vienna, were denounced, at least in England, as bold impostures. C.

QUARTERLY SUMMARY

OF MEDICAL AND SURGICAL INTELLIGENCE.

I. ANATOMY.

1. *Structure of the Skin.*—M. **Andral**, Jun., has demonstrated on a limb affected with elephantiasis, three sub-epidermic layers, admitted by **Gaultier** and **Dutrochet**, but which had never been before demonstrated except in negroes and animals. The dermis was considerably thickened; above it, the papillary body very distinct, and much developed in several places, was separated from the epidermis by three very distinct layers. One of these the innermost was thin, having the appearance of a white line, and received no vessel; (*couche albide profonde* of M. **Gaultier**, and *couche épidermique* of M. **Dutrochet**,) the second exterior to this, was composed of blackish filaments, analogous to the coloured layer of negroes, but without *gemmules;* and finally, the third, which was thicker, and scaly, was immediately subjacent to the epidermis; it is the *couche albide superficielle* of **Gaultier**, or the *couche cornée* of M. **Dutrochet**.—*Bibliotheque Med. Avril.*

2. *Appearances of Healthy Mucous Membranes.*—M. **Billard** obtained the prize of the Parisian Athenæum of Medicine for a treatise on the appearances presented by the healthy and diseased mucous membranes. His observations have been made in a course of many years in a large hospital at Angers, and his opinions of course have a claim to that respect which long experience and ample opportunities for observation might bestow. We take the following account of his observations from the July number of the Edinburgh Medical and Surgical Journal. Some of these observations have been already cited in vol. I, p. 441 of this Journal, but we will not separate them in this place on that account.

The *colour* of the mucous membrane in the adult state, when not injected either by disease or by pseudo morbid infiltration, is in the stomach dull-white; in the duodenum and jejunum pale ash-gray; in the ileum grayish-white, and in the great intestines white. In the fœtus, however, the whole alimentary canal has a pale rose-red tint, which disappears very soon after birth. During digestion, too, it assumes in all periods of life a more or less vivid red blush at the points where the alimentary matter is undergoing the process of chylification.

The *rugæ* differ very materially in distinctness, even in circumstances apparently the same. Stomachs, for example, are occasionally found, in which, although they have not been distended, scarcely any rugæ are visible. The first inch, or inch and a half, of the duodenum is free from rugæ or valves; the rest of the duodenum is crowded with imbricated plates, which become fewer and less prominent as we proceed downwards, till at length, at the termination of the ileum, they are merely linear. The valvulæ of the intestines do not begin to be formed till the seventh month after impregnation, the rugæ of the stomach not till birth.

The *villi* of the stomach and intestines are sometimes hardly perceptible, occasionally very distinct, even without the aid of a microscope. They are best seen by floating the membrane under water, and then passing the finger gently backwards and forwards over its surface. They are most abundant in the stomach and duodenum, diminish in number and distinctness in the rest of the small intestines, and in the great intestines are hardly visible.

The *muciparous glands*, about which anatomists are not yet very generally agreed, have been studied very carefully by M. BILLARD; and the following is the result of his inquiries. In some bodies they cannot be discovered but with great difficulty; in others, although the membrane is quite healthy, they are so distinct that even their orifices are visible to the naked eye. They are most obvious in the duodenum, at the termination of the ileum, and in the great intestines. In their most indistinct form they are seen arranged in oblong laminæ, with a barely perceptible line bounding them, and causing an increased opacity of the mucous coat when it is held between the eye and the light. In other places they are rendered more distinct by constituting little white granulations as big as a millet seed, and communicating together by a fold of the membrane. In their most distinct form the surface is studded with such granulations, the summit of each of which has a little gray point. In this form they are seen in the lower part of the ileum.

It is impossible to give an accurate account of the *thickness* of the mucous membrane of the intestinal canal in a state of health. It is thickest in the duodenum, then in the stomach, next in the rectum, jejunum, and ileum, and thinnest in the colon. When a fragment torn from the subjacent coat is stretched over the finger, the finger is seen through it, as through white crape.

The *mucus* secreted on the surface of the membrane, is abundant in the fœtus, and very firm about the time of birth. It is not easy to lay down its healthy characters in adult age; but it is never red, as some suppose, unless where the membrane underneath is infiltered with blood. It becomes less abundant in old age, particularly in the great intestines.—*Edin. Med. and Surg. Journal, July.*

3. *Nerves of Sense and Nerves of Motion.*—Mr. BROUGHTON, surgeon of 2nd Regt. of Life Guards, has published some cases exemplifying the difference in the functions of these nerves. 1. A young farrier had pain in the head and limbs, with some fever, for which he was purged. Two days after this his speech was indistinct, and he had some difficulty in adjusting the muscles of his face and mouth. The voluntary muscles of the limbs natural; but, the whole skin from head to foot of the left side, was so insensible, that a pin thrust into it would produce no sensation. Leeches and blisters on the head, and purgatives, removed the head-ach, but the sensibility did not return for some weecks. 2. The second patient was addicted to inebriety; he had pain of the head and loss of power in both extremities of the left side, while the sensibility was perfect. The head-ach was removed by purgatives, but the loss of power continued, and he was sent to Chelsea. 3. A trooper had giddiness and head-ach, a furred tongue and costiveness: muscular power not affected, but the skin of the left side was insensible: he was cured by antiphlogistics and mercurial alteratives. 4. This patient had loss of motion of the right side of the body, slight numbness of the face, and difficulty in adjusting the facial muscles: sensibility not impaired: he recovered after a good while.—*Johnson's Journal, July.*

4. *A Mummy.*—M. PASSALACQUA announced to the Royal Institute of France, at the sitting of March 19, that he had opened a Mummy in his Gallery, and found it in an extraordinary state of preservation. M. GEOFFROY ST. HILAIRE also declared that several of the organs of this mummy, and

particularly the diaphragm, still preserved their suppleness. M. **Champollion** has decyphered part of the manuscript papyri which were found with this mummy, and learns that the deceased was the daughter of the warder of the temple of Isis at Thebes, and her age about 19 years.

5. *M. Mayer of Bonn, on extirpation of the Kidneys.*—This gentleman has lately made many experiments on rabbits and Guinea-pigs; from which he deduces, that the extirpation of both the kidneys must always be followed by the death of the animal; and this event takes place most commonly within the space of from ten to thirty hours. He thinks that the inflammatory diseases which follow the loss of the kidneys, are to be attributed to the *metastatic secretion* of urine on the parts which become inflamed, as the cavities of the cranium, thorax and abdomen; and especially the ventricles of the brain, the pericardium, and the stomach and intestinal canal: the nervous affections derived from these operations are also to be explained in the same manner, to wit, the metastasis of urinary secretion to the nervous system.—*Bibliotheque Med. Avril,* 1827.

6. *Dr. Eichhorn on Cutaneous diseases.*—This gentleman has been several years employed in investigations concerning the structure and function of the organs of the cutaneous excretions. He intends to publish a work on the subject, and has permitted a translation of the second chapter to appear in the Journal des Progrès des Sciences Medicales. It has long been admitted, says he, that there exist in the skin, some small real glands, different from the *cryptæ* which enclose the roots of the hairs. These glands are supposed to furnish the sebaceous secretions of the skin, but yet no anatomical demonstration of them has ever been made.

After a minute and careful examination of the structure of the cryptæ which contain the hairs, and the pretended orifices of the sebaceous glands, Dr. **Eichhorn** comes to the conclusion, "that there do not exist any sebaceous glands, as distinct organs, and that the sebaceous matter is secreted in the cryptæ of the hairs (*cystes des poils*")."

Dr. E. denies the assertion which has been made, that the sebaceous matter is secreted for the purpose of lubricating the skin, and thus preserving its pliability and softness; an idea which he regards as unphilosophical, since its pliability depends not on being greased externally, like a pair of boots, but on the fluids which vitally circulate in it. He considers the sebaceous matter as intended to preserve the elasticity and disengagedness of the hairs, which would certainly become felted together on the head and other parts without some provision of this nature, since it is manifest that mere pressure and the action of water are capable of producing that result called felting. These conclusions are strengthened by the fact that the sebaceous matter is most abundant where the hairs are most numerous and most exposed to interlacement, as in the head, &c. in man; and in the sheep and other animals which have curled hair. He doubts the existence of sebaceous glands, even round the corona glandis penis, but does not speak with any certainty on this point; though he says the concretions which are occasionally found behind the corona, in persons who pay no regard to cleanliness, is not sebaceous matter. He proposes that the greasy matter should hereafter take its true name, *sebum pilorum.* There are several sections of the same chapter which treat of the pores of the skin, and the method of demonstrating them both on the living and dead tissue.—*Journal des Progrès.*

II. PHYSIOLOGY.

7. *Nævus Maternus.*—The following extraordinary case is related by G. BENNET, Esq. in the Lond. Med. and Phys. Journal for July.

"On the morning of the 19th of March last, Mr. BALDY's attendance was requested on a poor woman named Hooper, (residing in Lower-street, Plymouth,) then in the pains of labour, and who, shortly after his arrival, was safely delivered of a male child, presenting the following remarkable appearance. The mouth was extended to its utmost limits, and rendered incapable of being closed by the existence of a cluster of tumours, of various sizes, which occupied and projected from the upper and middle part of the tongue, and adhered to the greater portion of the superior portion of that organ. The tumours bore, in appearance, an astonishing resemblance to a bunch of grapes, not in form alone, but also in colour, being of a yellowish green hue, and covered with a very delicate pellicle or epidermis; whilst the similitude was rendered still greater by the globular tumours decreasing in size, in the manner so peculiar to a bunch of grapes. Besides this peculiar excrescence, there was yet another upon the same child, and attached to the upper part of the thorax: it consisted of a long portion of integuments, similar, both in size and colour, to the wattle of a turkey cock."

"Six hours after birth, both nævi were removed by Mr. BALDY, at which operation I assisted. Their removal was attended with but little hæmorrhage, and no vessels were required to be secured. In the course of a few days after the operation, the little sufferer was able to take the breast, and is now perfectly recovered."

There is a plate accompanying Mr. BENNET's paper, in which these nævi so exactly resemble some of the hydatids we have seen, as to raise in our mind a regret that they were not more fully described. If they prove to be nævi, then it will be admitted that the following additional remarks are possessed of the highest interest.

"It next became a question of interest what could have given rise to these peculiar excrescences. Upon my questioning the woman whether she recollected having felt a wish or longing for any particular object during the pregnancy, she immediately recalled to mind, that she had 'wished' or 'longed' for grapes; but more particularly on one occasion, when she saw a boy eating some; and still thinking on them when passing the streets, she was continually looking in the fruiterers' shops. The only circumstance that can account for the piece of integument resembling the wattle of a turkey-cock is, that when about four months advanced in pregnancy, going into a neighbour's *courtilage*, she was frightened by a turkey-cock running after her, as if for the purpose of attack; and, to use her own expression, 'turned her blood.' I consider it requisite to mention, that the woman, *at the time the questions were asked, was not aware that* any *deformity whatsoever existed*, with respect to the infant; although afterwards, her suspicions being excited, she inquired 'whether there were any marks about the child.'"

How many of what are supposed to be vulgar errors, may hereafter turn out to be no errors at all'—*Lond. Med. and Phys. Journ. July.*

8. *Causes of death after the ligature or division of the eighth pair of nerves.*—Professor MAYER, of Bonn, has lately performed several experiments on these organs, and informs us, that, if an animal dies *speedily* after the operation, coagula are found in the heart and pulmonary vessels, they are soft, and consist of a black clot; but if the animal survives longer, say forty-eight hours, they are white, and very dense. The regular healthy influence of the nerves being abolished, the blood ceases to be liquid, and

begins to decompose as if out of the body. Hence we may conclude that the fluidity of the blood is a product of nervous action, though this conclusion requires farther experiments, to become fully and undeniably established. This may serve, as Professor Mayer remarks, to throw some light on the pathology of asthma, a disease in which an affection of the nervus vagus occasions the formation of analogous coagulations.

Another circumstance mentioned by M. Mayer is this, viz. the pulsations of the heart became much more frequent while the respiratory motions became much slower, so that there appears in this case to be what he calls an antagonism in the two functions. We may remark that this antagonism is quite contrary to nature, for we find that the pulsations of the heart in exercise, in fever, &c. &c. increase in proportion to the number of respirations. The following table shows how the animals were effected:

Expt. 1.	respiration	fell from	17 to 8	Pulsation	rose from	34 to 120
2.	“	“	48 to 8	“	“	120 to 280
3.	“	“	80 to 40	“	not affected	
4.	“	“	100 to 48	“	“	
5.	“	“	80 to 28	“	“	

The temperature of the animals in which the respiration was so much affected, either did not diminish at all, or at least not in any proportion to the breathing.

Digestion, as far as the stomach is concerned, was not found to be diminished, although there was an anti-peristaltic motion. The chemical act of digestion was not affected. For in rabbits the chyme was acid, and in carnivorous animals it was neutral, as in ordinary circumstances. The assertions of Wilson Philip are consequently refuted by this experiment.—*Journal de Progrès, &c.*

9. *Anomalous Language.*—M. Martinet, of the Hotel Dieu, describes the case of a man called Lefevre, æt. 54 years, who, after some crosses, found himself embarrassed in attempting to read, write, or find words to express his ideas. His general health and the organs of speech were nevertheless apparently perfect. In attempting to reply to any question he made use of words either wholly unintelligible, or having a meaning entirely different from that he wished to communicate. For example, being asked if he had any pain in his head, he answered, *les douleurs ordonnent un avantage*, but if he wrote the answer, it was, *je ne souffre pas de la tete*. If you said *tambour* (drum) and asked him to repeat it, he said *fromage* (cheese), but wrote it very well when asked to do so. He could copy very exactly *feuille medicale*, but could not read it after he had copied it: he would say *féquicale, fénicale, fécocale*, and when *féquicale* was written for him he called it *jardait*. Various objects being presented to him, he designated them in general with correctness, but if he happened to make one mistake, he would go on and call a pen a cloth, a spitting-box a pen, a hand a cup, a string a hand, a ring a spitting-box; therefore, he could pronounce the words pen, hand, spitting-box, &c.

This is an interesting observation, as evincing the disjointed state of the mind, consequent to moral or physical causes. We have seen a case in which a young man being thrown out of a gig on his head, was at first stunned, then affected with the most persevering loquacity for some hours, which was followed by complete dumbness for several days; as the dumbness diminished, he began to give the wrong names to things, evidently understanding the differences between objects, but having totally forgotten the words which stood for them; in proportion as he recovered, he came nearer and nearer to correctness: for example, he was a whole day learning to say apple, which he persisted in calling A-ple.

10. *Dr. Ant. Verniere on the sense of Taste.*—The best physiologists have

admitted that gustation is common to the tongue, the palate, the gums, and the mucous lining of the lips and cheeks; but Dr. **Vernière** has discovered that this opinion is not correct. Dr. V. has experimented lately on this subject, and declares in his new topography of taste, that there is in reality nothing of that sense along the middle of the tongue, while it appreciates the slightest savours along its edges, at the tip, on the under surface, and over a large portion of its base. The mucous covering of the jaws, the gums, the cheeks, and the lips is completely deprived of this sense. Where the membrane covers the bony vault of the palate, there is no taste, but it appears in the soft palate to be very acute, as well as on the arches and on the amygdalæ. The upper surface of the soft palate is possessed of taste, as he proved by letting sugared water run back on the floor of the nares; he even says that in this way he obtained the liveliest impression of the taste of sugar he ever experienced. The pharynx is also endowed with this sense as far down as he was able to explore it. These observations go to show that the papillæ of the tongue are really not the organs of taste, as they have been supposed to be, inasmuch as they are least abundant in places where the sense is most intense.—*Journal Des Progres.*

11. *Muscular Action.*—"**Robert Skeffer**, the pedestrian, has finished his arduous task of walking from Winchester to Farnham, and back, fifty-six miles, for twenty successive days. This feat is, we believe, the greatest of its kind ever performed in this or in any other country."—*Edinb. New Philos. Journal.*

12. *Polarity.*—In a former number of this journal we gave some account of the discussions concerning animal magnetism, held in the Academy at Paris; and in a different number, an account of the views entertained by **Glisson** and his predecessors, on the nature of life. Such of our readers as remember those articles will not be surprised to see in this place an account of what is called *Polarity.* We gather it out of the third No. of the Journal des Progrès, for which it was written by M. **Martinet.** We learn in that place, that a doctrine termed polarity has prevailed for several years in Germany and Italy, particularly in the schools of Vienna and Pavia. It has been developed in several works, said to be very ably written. These are the productions of **Lenhossek**, **Hildenbrand**, and others. A very wide spread influence in Italy is boldly claimed for it, where it is said to outstrip even the contra-stimulism itself. We are sorry if this is true, as its inevitable tendency is towards complete atheism, as, for example, in the following passage. "The *first* cause of *universal nature,* unknown but by its effects, is called *Force* of *Nature.* Every thing that exists, or strikes our senses, is established and maintained in virtue of primitive forces, so that these ultimate powers are to be regarded as real *nouménes.*"

All the phenomena of nature evince a double effect, attraction and repulsion, which are opposed to each other. The primitive force of nature, therefore, is distinguished into two forces, which are called *polar;* one attractive, the other repulsive, by virtue of which all the visible or otherwise cognizable phenomena of the universe are produced. Attraction limits repulsion, contraction limits expansion, and vice versa: When the forces are equal, a state ensues which is denominated the sate of *indifference;* but as the constant interference of phenomena prevents the continuance of this state of *indifference,* the struggle for it, or the tendency to it, is a perpetual combat, which is nothing more nor less than *life.* Various proportions of polar forces in this vast frame of things, must produce a great variety of forms, or causes and effects; and all the phenomena that result may be arranged under the heads of *Mechanical, Chemical,* and *Dynamic.*

No phenomenon can exist, or be conceived of as independent of motion;

the causes of motion are either mechanical, chemical, or dynamic. The mechanical causes of motion depend on the gravity and impenetrability of matter; the chemical causes depend on molecular changes of the elements of bodies; the dynamic causes of motion, on the contrary, do not depend necessarily, either on changes of form or space, or molecular combinations. The dynamic causes constitute the *proximate* cause of *motion;* motion is always dynamic, a conflict of polar forces then taking place, *so that it is impossible to conceive of a body in motion as entirely passive.*

Our readers now perceive that in the formation of all bodies, there must have been a conflict of these polarities, and that each body retains a part of the forces, by the conflict of which it has been constituted a body. It has appropriated, out of the great reservoir, enough of these forces to constitute it an individual, and to maintain itself as such in spite of all opposing weaker forces. Such a body therefore is not *inert;* it constitutes an active integer of universal nature; it lives, and there *exists* nothing, from a particle of dust up to a man, that is really *dead.*

Universal life is that total of forces by which all nature exists—individual life is that by which each body exists. There are no well determined limits between what we call, in common language, living and dead matter; the difference between them is only apparent: some possess the self-maintaining power in so low a degree, that it is not cognizable by the senses, it is true, so that there are infinite gradations from the minimum up to the maximum state of life. Bodies may be divided therefore in *cryptobiotic,* and *phænerobiotic,* or those in which life is obscure, and those in which it is manifest. We have no space sufficient to trace out here after M. MARTINET, the shades of difference between these two states of life, which he has done at much length. We must content us with citing as much as is necessary of this metaphysical physiology, and shall be glad to have done with it forever when we have expressed our opinion concerning its tendency.

Since *universal nature* is strongly bound up in a system of mutual relations, it follows that no one body can exist without being more or less under the influence of other bodies; for the intrinsic vitality which a body acquires by the act of becoming individual, implies only the possibility, and not the fact of living. No life can be manifested in it unless a suitable influence is exerted to that end by other bodies extrinsic to it. Excitants, therefore, are admitted in this polar doctrine; no function can be exercised without an impulse from without, an excitement, a stimulation. These excitants, or external agents, trouble the equilibrium of the *primitive forces* of a body; motions result from this loss of balance, and these motions are the phenomena of life: hunger, thirst, digestion, the secretions, nutrition, muscular contraction and irritability, even sensibility, and the act of conception, are produced by the polar forces, which in a high organism have resulted in a principle called vital-imponderable, or bio-dynamic, of which the *motors* are nerves, just as Dr. HARE's zinc and copper rolls are the calori-motors of his powerful apparatus. This *principe imponderable biotique* is the vital principle, "and is only developed by vital action." How incomprehensible that the vital principle should be produced by vital action; the cause is the cause of itself, or the effect is the effect of itself.

Such, in a few words, is the theory of polarity, which would render all nature a huge biomotor; which, referring all the multiplied and manifest proofs of order, wisdom, benevolence, and power that we see in creation and providence, to the action of two opposing principles, repulsion and attraction, or as it might be denominated, north-ism and south-ism, quietly takes away the very foundation of religion, virtue, hope, and therein happiness, from the groping bio-motived philosopher who may be so simple as to adopt it. The imponderable *bio-dynamique* is exalted into the throne of the great God who ruleth in the heavens; the highest and holiest example of virtue is but a beautiful specimen of attraction and repulsion; Socrates and Washington are no more to be praised for their goodness, than Domitian and Marat are to be blamed and execrated for their atrocious violation of all human and divine laws; and the whole goodly frame of nature, ordained with so much wonderful wisdom, and upheld with so much perfect goodness, may, or may not, just as it happens, rush into wild and primæval chaos, now, to-morrow, or never. There is no eternal and imprescriptible rule of right: the murderer and his innocent victim are alike innocent and unfortunate! Alas, for the philosophy which would conduct mankind to such a light as this! Anacharsis Clootz and his prostitute conducted in triumph among the ghastly trophies of the guillotine, could teach nothing of worse tendency than this polar philosophy. We reject it for our countrymen, and scorn it, and pity it, as unworthy a school of philosophers, and more unworthy a school of physicians.

We know not how widely such extravagances may reign in Europe, but we cannot but express our unfeigned astonishment, that such doctrines can be quietly listened to in countries which boast their advances in knowledge, and treat with contempt the little progress made by the human mind on this side of the Atlantic. Let us rejoice in our humbleness; we would even rather go back and burn witches at Salem, or hang quakers at Plymouth, in the fear of God; we would rather turn the wheel with a Schaman, or look through the fire with a Guebre, up to a Great and Provident Deity, than run so reckless a career of philosophy as this revived epicurianism, which, in the 19th century, would set up *nouménes* not so discreet as Jupiter Olympius, and no more to be depended on than a thieving Mercury. There is great reason to complain of the tendency of much of the professional philosophy of our European brethren; some of the articles in the Dict. des Sciences Medicales are, for example, more impure than the wit of Charles II.'s courtiers, they are immodest and demoralizing. We would soberly ask these physicians, what advantages they expect to mankind from such things as this polarity? Are the legitimate objects of pursuit to be found in the subversion of those principles, which, strong as they are, cannot even now keep the jails empty, and the gallows free from its frightful burthen? Are these objects other than that profitable knowledge which enables us to administer most efficiently the divine charities of our art? Let not this noble science, when, as often, it cannot arrest the messenger of death, be employed to sharpen and poison his sting, or augment the terrors of his victory.

III. PATHOLOGY.

13. *Our remarks on Dr. Broussais.*—In the March number of the *Annales* edited by the celebrated French reformer, exceptions are taken against a note in one of our former articles, where we disclaim any membership of his sect or school, and notice some of the recent discussions. It is there said that we "endeavour to cast a sort of ridicule over him and his opinions." We have been misunderstood. We never praised the "Lettres à un Médecin de Province;" and the sole object at which we gave way to a smile was the claim there alleged to have been made to a freedom from the ordinary imperfections of human science, and, their necessary consequence, a liability to future reform. We were, perhaps, wrong; and the

part of HERACLITUS would have become us better. A tear is indeed due to those fond anticipations of future permanence which constitute the legitimate aliment of genius; but which are so uniformly destined to be more or less extensively disappointed.

We wish the reviewer could be made aware how frequently we are considered as the defenders and disseminators of his leading doctrines; or, again, that many of those principles which he inculcates have been long and earnestly inculcated by our venerated RUSH. There is certainly less ground for his reform in this country than there seems to have existed in France; as the majority of us have long discarded the practice of prescribing for isolated definitions of disease, and assumed the uniform habit of analyzing "the state of the system" according to the best lights we possessed, as the grounds of our judgment in the application of remedies.

It would be easy for us to add to the length of this article; but we do not wish to occupy the time of our readers with our personal feelings. It is with unfeigned respect that we speak of the labours and merits of Dr. BROUSSAIS; but the reviewer should recollect that we are at the distance of 3000 miles from him, and cannot feel quite so lively an interest in the disputes of Paris as he does. We are men originally of different habits and ideas; and to receive new doctrines with caution is what we have always apprehended to be true philosophy. We are told that we have not an adequate acquaintance with the new doctrines. This is, no doubt, correct; as we have had no one to teach us, and that knowledge which is borrowed from the hasty perusal of books, coming amid a crowd of diversified publications, must certainly be less perfect than his own.

14. *East India cholera* analyzed according to the principles of the physiological school. M. GRAVIER, physician in chief to the health service of Pondicherry, is a pupil of the physiological school, and has favoured us with his observations on the subject of the disease called, in the East Indies, by the names of epidemic cholera and *mort de chien*. He has enjoyed the most ample opportunity for becoming acquainted with this truly destructive plague; having resided for eight years upon the theatre of its ravages.

An account of his opinions and experience will possess a double interest; both from the application of these celebrated doctrines to a terrific malady frequently invading, in a sporadic manner, the United States, and from its affording the means of a comparison of the views of a French physician with those of the English army and navy practitioners whose reports have reached us, either entire or in analyses. M. GRAVIER goes all lengths; and states his success to have been such as to justify his treatment to the fullest extent.

A species of distress incapable of being well expressed, or a kind of stupidity, was, in many cases, among the first symptoms. This was frequently assigned by the sufferers as a reason why they had not sooner applied for medical assistance. In others, and these were the greater number, the attack was sudden, and almost always took place during the night.

The most remarkable symptoms were, in the order enumerated, as follow: vomitings of a limpid fluid, mixed with a whitish mucus, and frequently containing worms; stools of the same appearance, *without worms;* pulse remarkably small; acute pains in the stomach; decomposition of the features;* eyes haggard, sunken, dull; movements irregular; tongue red (bright red?) over its whole surface; ardent thirst. After some moments, an exasperation of these symptoms; extremities cold, inability to lie on either side; violent pains in the stomach and lower belly; picking at the bed clothes; cold sweats; suppression of urine; pulse almost insensible; tongue dry, pointed, red; eyes fixed; spasms; oppression at the præcordia.

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* Deep alteration of the features, by the contraction of the muscles of the face. *Dict.*

Emissions of blood, according to M. Gravier, were always followed by relief to a greater or less extent; and he inserts this fact among the symptoms. A smart appetite was frequently the product of his leechings; to indulge which, however, during the first intervals, was fatal. The disease, when left to itself, lasted from one, two, or three hours, to twenty-four hours, and never longer. *All that were not attended to, died.* (p. 271.) Nearly half of the population of Pondicherry were affected within the single year.

Dr. Broussais's reviewer comments, we think with good grounds, upon the incomplete character of the anatomical investigations which had been made for the purpose of elucidating the disease. The practitioners "had not known how to see the cause of the evil; and had devoted their ingenuity to hypotheses on its nature, and to disputes which can have interest for those alone who wish one day to amuse themselves by passing in review the follies of physicians."

Numerous dissections have shown him the internal membrane of the œsophagus inflamed, the cardiac orifice of a violet red, the internal membrane of the stomach, throughout the whole extent of that viscus, thickened, and of that brown, colour which has frequently been considered gangrenous, and, in one instance, ulcerated, and easily separating from the muscular coat. He saw the latter perforated in an old woman, who had vomited a number of worms. (M. Bremser would not have thought the worms could produce the perforations; vide Vol. 2, of this Journal.) The duodenum always presented the same appearances as the stomach; but the [other] small intestines did not exhibit traces of an equally violent inflammation. The intestinal canal was empty. The bladder was inflamed, and resembled parchment rumpled; the liver and spleen were natural; the gall-bladder was full of yellow bile; the encephalon and the thoracic viscera were sound. In general the marks of inflammation were less severe in those persons who had died after a very short illness, than in those who survived longer. Several English physicians found intus-susceptions; but M. Gravier did not.

M. G. deserves the more praise for his exertions in obtaining these anatomical facts; as in that hot and rapidly decomposing climate, his health was entirely shattered by the exposures he underwent in making the dissections.

The cholera, at Pondicherry, is peculiar to the north-east monsoon, in which the wind is sometimes wet and sometimes dry, but always cold; thus presenting a baneful alternation with the heat of the noon-day sun. (At Madras, in its vicinity, the thermometer usually rises to 88°—vide Johnson on tropical climates.) The natives suffered most from the action of these causes, being directly exposed, in open buildings, to the night air, with insufficient clothing. The wretched class of Pariahs, or outcasts, in particular, suffered most dreadfully. Europeans, who lived better, escaped, while those who lived in the Indian manner were exposed to the disease. In what this better regime consisted we are not told, excepting the greater protection afforded by their houses against cold and moisture. The natives were supported by rice and millet, mixed with preserves, curdled milk, legumes, and tender vegetable leaves. Their drink is described as warm water. We are to recollect, or at least presume, that the Europeans here alluded to are French, and not English; and we may infer that a smaller portion of spirituous liquors entered into their bill of fare.

It is highly interesting to see how far at least the external causes of cholera correspond with what we observe in the United States. The attack was almost always in a cool night, succeeding to a warm day. M. Gravier is convinced from extensive observation, that the East India cholera is never *contagious*, excepting where a focus of infection is generated among a large assemblage of men, and liable to be thus transported from one place to another. Of this he cites several instances.

From what we have passed in review, M. Gravier considers the cholera as inflammatory; and calls it "the epidemic gastro-enteritis of India." In another place it is said to be the same with yellow fever—rather sweeping, we should think, but there is a strong analogy between these diseases.

M. G. thinks that the present is a suitable subject for the treatment by leeches to the stomach, and demulcent drinks. Experience is the only guide; and if we can judge from his reports, is very strongly in his favour. He is astonished to find with what ease the most frightful maladies are cured, or with what facility they are rendered permanent (eternisé.) He gives in a table of seven years' practice of the native Sinnapa Ambou, in a batallion of sepoys. The cases amount to 205, of which only 20 died.

It has been an occasional occurrence to hear American physicians express astonishment at the fondness manifested by the French for remedies apparently so inert as demulcent drinks, and an impression that it amounted to a mania, or at least to an extremely strong prejudice. It may not be amiss to hear M. Gravier state, that the English, with whom we may include most of our countrymen, "have a *horror of ptisans.*" We have not ourselves been free from the habit of thinking, which has probably given rise to this remark; and candour requires us to acknowledge our present conviction that we were in error, and have neglected a very useful remedy.

Gum water is too nourishing; and acidulated water gives rise to eructations; nothing being so good as cold water. In cases which he presents, the most prompt and decided relief follows the use of leeches and cold water.—*Annales de la Med. Phys. March.*

15. *Black Vomit.*-Dr. Dickson, of South Carolina College, has published an essay on this substance. He cites cases in which it has appeared during pregnancy, and in one instance, from fatigue, in a boy. He gives, from his own experience, cases in which black vomiting took place during *pregnancy*, a *catarrhal fever*, *dropsy*, *varioloid*, *enteritis*, an "obscure *abdominal affection*," with severe pain in the whole length of the spine, obstinate constipation, great irritability of the stomach, and prostration of the vital powers; and, finally, in two cases of bilious remittent fever, distant from the city. Of these, the dropsy, the enteritis, the case of constipation and vomiting, and the two bilious fevers, were mortal, and the other patients recovered.

Dr. Dickson sides with those who consider this substance a peculiar secretion, and not blood, altered by the gastric fluids. To this opinion we ourselves incline; and will take the liberty of adding that the facts collected by Dr. Dickson go far to demonstrate the identity in nature of the greater part of the disease in all these diversified cases, namely, an inflammation of the mucous membrane of the abdominal canal.—*Phil. Journal, August.*

16. *Local læsions in fever.*—Dr. Hewett has published (Lond. Med. and Phys. Jour. August) a tabular view of the morbid appearances which presented themselves in *all* the fatal cases of fever received into St. George's Hospital during the year from July 1st, 1826, to July 1st, 1827. A statement of the result may serve to enable us to judge of the relative frequency of morbid affection in the great organs of the body, and of the propriety of considering the greater portion of ordinary fevers as cases of gastro-entero-cerebritis. Minor and unimportant alterations are neglected by Dr. H., as interfering with the general views which he wishes to take of the subject.

Twenty-six cases are given. In *six* of these considerable disease existed in the cephalic, thoracic, and abdominal cavities, at the same time; in *nine* there was considerable disease of the head and abdomen; in *one*, in the head and thorax; (a case of pleurisy coming on from cold, during convalescence;) in *three*, in the thorax and abdomen; in *five*, in the head alone; in *two*, in the thorax alone; in *one*, in the abdomen alone; and, finally, in *one* case, a peritonitis was found, but the subject was not examined farther.

Of the abdominal viscera, Dr. H.'s principal attention was directed to the intestines; in the mucous membrane of which he searched with peculiar care, for that disease of the glands of Peyer and Brunner, which we noticed in our Quarterly Summary for July, 1826, as being described by Dr. Bretonneau, of Tours, under the name of *dothinentery*. He found this lately unknown affection in no less than *eleven* cases.

Dr. H. conceives that "these follicular ulcers of the small intestines, seen in the above report to have so often occurred, arise spontaneously during the progress of idiopathic fever;" "and when once established," that "they must, at least during their active and irritable state, reciprocally exasperate the symptoms, and become a very effective cause of the prolongation of fever." "Their existence," he also thinks, "when they have lost their irritability, and assumed a tranquil condition, is not incompatible with the subsidence of the fever, and even with some semblance of convalescence." To establish these points, he narrates cases, in which, after a considerable period of apparent amendment, relapses took place, and the patients ultimately died, exhibiting follicular ulcerations after death. "In these and many similar cases, the original fever seems either to subside entirely, or to assume a new character, by becoming merely a secondary fever, symptomatic of the local irritation from the ulcers in the intestines;" similar to the hectic of phthisis, and the infantile remittent fever from local irritation. "It is not meant to be implied that the conversion of a continued into a remittent fever is necessarily connected with this kind of ulceration in the bowels: such conversion is, on the contrary, generally and justly considered as a very favourable omen; but then the progressive amendment is sufficiently evident, which is far otherwise with cases such as have been related above."

This paper is written, with a view of exposing the peculiarities of these ulcers, not from attaching an undue importance to them; but from finding, that, while the attention of the practitioner is attracted by the more alarming symptoms of other lesions, these are making concealed progress, and often complete the work of destruction without even exciting a suspicion of their existence.

17. *Bronchitis fatal by repletion of the air-passages.*—Dr. W. H. Burrell, of the British 72d regiment, has published an essay on the above disease, with a few cases. His principal object is to prove that bronchitis, in its advanced stage, is more apt to prove fatal by the accumulation of mucus in the ramifications of the air tubes, than by the direct effect of the inflammation. "Contrary to general rule, our attention is to be directed to the removal of effects rather than of causes;" and "the removal, by blood-letting, of the inflammatory tension of the blood-vessels, disposes the exhalant arteries of the mucous membrane to increased secretion, and thus augments the very evil, to the speedy expulsion of which our chief endeavours should be directed." These considerations, coupled with the bad success which he has observed to attend the practice, led him to pronounce blood-letting, in the advanced stage, a remedy fraught with dangerous, if not fatal consequences. He is disposed to depend principally on nauseating doses of tartar emetic, warm inhalations, emetics in full dose, and mercury. He adds his testimony to that of the Broussais school, to the uselessness or

injurious effects of blisters during the existence of general excitement.—*Edin. Med. and Surgical Journal, July.*

18. *Homœopathia.*—It may seem disrespectful to a new body of medical doctrines to dismiss it in a note; but we have not as yet been sufficiently convinced of the value of homœopathia to determine on devoting a review to it. Notice has been taken, some time since, in most of the American journals, of a mode, said to have been introduced in Germany, of preventing scarlatina, by the use of belladonna, the belladonna producing a scarlet eruption, bearing some resemblance to that of the disease in question. We took this to be an attempt to imitate the preventive action of vaccination in regard to the small-pox; but it now appears that it is part of a system, a body of doctrines, for which has been adopted the above name.

Dr. HAHNEMANN is evidently a physician of learning and experience. He practised in Leipzig, dispensing his remedies himself, to prevent their being known; and was expelled from Leipzig for thus encroaching on the privileges of the apothecaries, and for selling secret medicines. He now resides in the duchy of Anhalt Coethen, situated between Magdeburg and the Saxon frontier; where he carries on a very extensive practice, and is frequently consulted by persons from a great distance. He first broached some of his principles in HUFELAND's Journal, about thirty years ago; and, in 1810, published a systematic work on the new doctrines, entitled, "Organon der Heilkunde," a book which reached a third edition. Between 1811 and 1821, he also published an octavo work, in six volumes, entitled "The Pure Materia Medica," adapted to his doctrines; and this has also been re-published. He commenced in 1822, and he still continues a journal, entitled "Archiev fuer die Homœpathische Heilkunst."

There are three modes of curing diseases, according to Dr. HAHNEMANN; 1. the Allopathic, or that by producing a different morbid action, and transferring the existing one to a new situation; 2. the Homœopathic, of which we are about to treat; and 3. the Antipathic, or Enantiopathic, consisting in opposing the disease by producing its opposite. This last he calls a palliative method; and complains that, when the effect of the remedy has ceased, the disease returns with aggravated violence. It is therefore the worst of all; and it would be better to confine ourselves to the production of metastases, according to the Allopathic plan.

But the real and successful plan, the Homœopathic, consists in giving such remedies as would of themselves produce an analogous disease. The original complaint is thus superseded by an artificial one; and when the effect of the remedy has gone off, the patient is well, at least of those symptoms to which the medicine was applicable. Thus, if a man is taken ill with head-ach, pain in the back, vomiting, and a red flush on the skin, we are to hunt up some narcotic poison, which produces all these symptoms, or the greater part of them, give him the thousandth part of a grain or drop of the article, and leave him. Next morning we are to find him well of all the symptoms which the poison was calculated to aggravate. We use the word poison because a great portion of his remedies are such. Belladonna, hemp, menispermum, cocculus, nux vomica, stramonium, arnica montana, pulsatilla, aconitum, opium, hyoscyamus, bryonia alba, American poison vine, are favourite medicines.

His researches into materia medica appear to be a most faithful and laborious attempt to enumerate *all* the symptoms which may be produced by the most extended list of articles. Their effects are recorded with the most painful, and we might perhaps say, ridiculous minuteness. Nux vomica produces 50 pages of symptoms: and opium 53! Chamomile flowers produce 1481 symptoms; elder flowers, 116; mullein flowers, 175; iron, 238; bark, 691; platinum, 402!!

The *Journal des Progrès* gives a cure of a disease of some severity produced by the *quintillionth part of a drop* of something or other. We will mention two cases, given in the Edinburgh Journal, which the editors of that publication assert to be the *only two cases* which HAHNEMANN has published in his own works, although others may be found in the writings of his disciples.

In case 1. a stout washerwoman had been unable to work for three weeks, suffering from an acute pulsating pain in the cardia, at every movement, particularly when the feet were put to the ground; the pain coming on in the left side whenever a false step was made; on lying down, patient quite easy; unable to sleep after three in the morning; nausea after eating; a collection of fluid in the mouth after eating; eructation, but without odour, after eating; a choleric temperament and covered with sweat during the paroxysms of pain. To this enumeration succeed a discussion and comparison of certain remedies, which lead us to the conclusion, that, of the whole materia medica, that remedy most capable of *producing* such symptoms is bryonia alba; and, as the patient was robust, she might take, without imprudence, one of the heaviest homœopathical doses, namely, *an entire drop* of bryony juice. The result of this severe treatment is not given in the Edinburgh journal, but we are bound to presume that it was a homœopathical cure.

Case 2. was a weak, pale complexioned man, forty-two years of age, an accountant, who had been ill five days. Symptoms, vertigo *in the evening*, with nausea and eructation; vomiting at 2 o'clock in the morning; fœtid and acid eructations; a sensation of the food remaining undigested in the stomach; a sensation of the head being empty and rather confused; the slightest noise being troublesome; the mind remaining tranquil.

Now pulsatilla is the remedy best adapted to produce all these results; not forgetting the vertigo in the evening, and the tranquillity of mind. On account of the patient's weakness, however, it was judged proper to administer a very small dose. *One eight millionth part* of a drop of pulsatilla juice was therefore given to the patient in the evening. On the following day HAHNEMANN asserts that the patient was free from all his complaints; his digestion was quite restored, and intelligence was brought at the end of the week that he continued in good health.

After this introduction, our readers will probably think it a work of supererogation to make any remarks on the proper mode of preparing and preserving medicines for homœopathic use. Quære de hoc! as the lawyers say. Medicinal substances are to be chosen in their natural and unprepared state. HAHNEMANN considers it the best mode of preserving the active principle of plants to mix the expressed juice with an equal quantity of pure spirits. If the plant be powdered, the greatest care should be taken to dry the substances most carefully in the dark; and after powdering, they should be dried a second time, by the water bath. This should be continued till the particles, when stirred, go apart like fine sand; they should be preserved in closely stopped glass bottles, and carefully kept from the direct rays of the sun, and best in the dark.

No more than one medicine at a time, and that in the most simple form, is to be administered in a single case.

We have become so familiarized to wonders, in the present state of medical and other science, that, to use the appropriate expression of a friend, we "are almost afraid to disbelieve any thing:" but we may be permitted, we think, in the present instance, to say that this doctrine is a queer one. If we understand it correctly, one of its effects, if successful, will be to lighten our own labours; for we cannot conceive what possible use there can be in pathological investigations, the study of sympathies, or that of morbid alterations of structure, when the whole ars medendi shall be reduced to the simple problem:—"*Given, a certain collection of symptoms, to guess out a substance which is capable of producing nearly the same effects, and to give the millionth part of a grain of it.*" We may be too hasty here, also, it seems, in imagining it impossible to borrow a single argument from alleged previous experience in favour of homœopathia. Dr. Hahnemann cites, in confirmation of his doctrine, Dr. Kentish's cures of burns by his spirits of turpentine, that of syphilis by mercury, which, according to Mathias and others, is capable of producing the same effects, that of the sweating fever of 1685 by diaphoretics, of frost-bitten parts by rubbing with snow, of burns by holding them to the fire, &c.

The discoverer has here exactly harped upon a string of our own old (personal) doubts and disbeliefs. We, however, refer the whole matter to time and experience, quem "penes arbitrium est," the justice of all medical doctrines.

19. *Contagion question in Yellow Fever.*—The doctrine of non-contagion, which is regulated by degrees in latitude, has at length gained a victory in 48°, 42′, north. At the extraordinary sitting of the Royal Academy of Medicine of Paris, held May 15, 1827, the Academy heard read, according to the writer in the *Archives* for May, an extremely remarkable report, made by M. Coutanceau, in behalf of a committee of eighteen members, to whom has been referred a number of documents relative to yellow fever, collected by Dr. Chervin, in America and in Spain, together with the following question from the minister of the interior: "Is there ground for the postponing the construction of new lazarettos?"

In 1821, during the epidemic of Barcelona, in Spain, a committee, composed of Messrs. Pariset, Bally, and François, was sent to the spot, for the purpose of observing the disease, its character, its mode of propagation, and the most effectual means of preservation and cure for those exposed to it. The committee reported in favour of importation, contagion, and quarantines, "cordon sanitaire," and all; and this opinion they supported by a number of facts, which they alleged as conclusive evidence of its correctness. On the 3rd of March, 1822, a law was passed, making the most severe arrangements for a non-intercourse with Spain, which inflicted the punishment of death in many cases, instituted a sanitary discipline, and directed the construction of new lazarettos. The "cordon sanitaire," as is well known, became subsequently convinced, that the best method of ensuring the health of the two countries was invading that one where the yellow fever prevailed, and overturning the government thereof.

The report of the committee was vehemently attacked by a number of Spanish physicians; but the honour of striking the most decisive blow was reserved for Dr. Chervin, whose talents and amiable qualities gained him so many friends during his sojourning in this country. We are promised, in a future number of the Archives, to be presented with an analysis of the fine report of M. Coutanceau, and of the then impending discussion. In the meanwhile, we are told that Dr. Chervin has shown, by authenticated documents, (we all remember the extreme formality of those he obtained among us,) that hundreds of alleged facts, contained in the committee's report, "are incorrect and forged, (controuvés,) that the persons put to death (tuées) in the report, are in very good health, and that families on whom the committee had inflicted yellow fever in the most cruel manner, had never seen the disease." We have translated, very closely, the words of the writer in the Archives; who adds "such is the manner in which history is written!"

The conclusions come to in the last report are said to be nearly these,
1. That the documents collected by M. Chervin merited the most serious

attention of government; and 2. That they are of a nature to induce the latter to postpone the erection of the sanitary establishments ordained by the law of the 3rd of March, 1822. These conclusions were passed unanimously (we presume by the committee of reference.)

The report was ordered to be printed, notwithstanding the lively opposition of M. **Pariset**; who assigned, as the reason for the part he took, *the interest of the government.* It appears that M. P. succeeded in prevailing on the council of administration of the academy, to postpone the publication of the report, in order to allow him the privilege of conjoining with it a refutation; and that, finally, the academy was to have a new, and it was hoped conclusive, discussion, on the 5th of June last. It is understood that M. **Pariset** is favoured by the minister of the interior.

Thus far we have followed the "Archives;" but while the foregoing was in the hands of the compositor, we have received a continuation of the subject in the July number of the "Journal Générale de Médicine." The lateness of this arrival, and the limited space allowed us, will effectually prevent our being able to give an extended analysis of the discussion.

M. **Adelon** defended the course which the Administrative Council had pursued; and moved, as an act of justice, that they be heard, *previously* to opening the discussion. This was objected to by Baron **Desgenettes.** M. **Adelon**'s proposition, however, was carried; and M. **Pariset** read a long written reply. We have perused the analysis of this reply which is given in the journal; but have not, of course, a complete view of the subject. We will, however, say, from its own character, that it appears to us to be a defence of a few selected points, and to leave other parts of the arguments untouched. For instance, M. P., in direct terms, waives the whole subject of M. **Chervin**'s American documents; which, one would think, were of *some* importance. M. P. concludes with an appeal to the experience and practice of England and Spain, who still support quarantines; and with a denunciation of the terrific consequences to be expected from the entrance of this pestilence into France. M. **Coutanceau** moved that M. **Pariset**'s reply be published along with the report of the committee over which he presided.

M. **Rochoux** avowed himself a contagionist, but publicly corrected a part of the reply, in which he had been stated as authority for one of the facts cited in it.

At the next sitting, June 19, 1827, some corrections were made in the minutes, both which were of phrases that seemed to lean towards contagion. A letter from M. **Audouard** was read, requesting to be heard in defence of some of his own statements which had been contradicted, and in endeavouring to show that both sides were in the right.

A letter was read from M. **Boisbertrand**, an officer of government, informing the Academy that they had misunderstood the question referred to them; which did not regard the postponement of new lazarettos, that being a government affair; and requesting them to confine themselves to the simple discussion of contagion or non-contagion. M. **Coutanceau** then moved, that the report of the committee be preserved entire, with the simple exception of changing a few phrases which would make it a reply to the question as now stated by the minister; which, after a very animated debate was finally carried, and the amended report ordered to be printed for the sitting of the 1st Tuesday in July.

IV. PRACTICE OF MEDICINE, THERAPEUTICS, AND MATERIA MEDICA.

20. *Stramonium in Chronic Rheumatism.*—The extract of the leaves of the stramonium, beginning with a dose of one grain in the twenty-four hours, and gradually increased until vertigo is induced, is recommended by M. de Kirckhoff, in chronic rheumatism. He also makes use of frictions with the tincture of the plant, or a cataplasm of the leaves to the pained parts.

21. *Treatment of the Itch.*—Professor Delpech, of Montpelier, considers the itch as purely a local or cutaneous disease, which may be promptly cured without danger of internal disorder. He instances the fact of six thousand soldiers suffering under the itch, who were all cured in a few days without any sinister effects resulting, by their washing one another twice daily, at first with soap and water, and subsequently with a solution of an alkaline hydrosulphuret. Dr. Delpech has, moreover, discovered by comparative trials made in the hospital at Montpelier, that simple olive oil, rubbed over the skin, will as speedily cure those labouring under the disease as the various sulphurous preparations in common use. He found indeed that one hundred soldiers were entirely cured in an average period of seventeen days, by the former mentioned treatment, whereas twenty-three days elapsed before the like number were entirely relieved by the use of the sulphur ointment. Vide Professor Delpech's memoir, entitled *Traitement de la Gale*, for the outlines of which we are indebted to the April number of *the Archives Génerales de Médecine.*

22. *Gastro-enteritis complicated with hepatitis, following the use of a purgative.*—This is the title of a paper of M. Vernhes, reported to the Royal Academy of Medicine at Paris, by M. Gerardin. The subject was a female twenty-eight years of age, whose pregnancies had always been accompanied by acute pains in the stomach, and frequent vomiting. After a period of four years of, for her, unusual health, she was seized with violent gastric pains, vomiting, and slight febrile paroxysms, Her physicians fearing an intermittent gastro-enteritis, then prevalent in the district, administered in succession an emetic and two purges; but under the influence of this treatment, the patient soon suffered from the most lancinating pains in the right hypochondrium, and a general jaundice, together with an aggravation of all the pre-existing symptoms. Recourse was then had to the reiterated application of leeches over the region of the liver and to the anus, baths and the entire antiphlogistic treatment. In three months a complete cure was accomplished, after which a journey, imprudently undertaken, brought on a relapse, which, though combated rationally, and with at first an appearance of success, left behind it a chronic gastro-hepatic inflammation, which was only cured after a lapse of four years.—*Archiv. Gen.*

23. *Action of Belladonna on the Eye.*—M. Segalas, from experiments made on cats, thinks, that belladonna applied to the conjunctiva has two distinct actions, the first manifested on both eyes at the same time, and due to absorption; and the second, which is only exercised on the eye to which the substance was applied, and which would seem to be referrible to a local absorption or imbibition.

M. Lisfranc informs us, that in certain ophthalmias, in which the redness of the eye is of little moment, and yet the sensibility of the organ extreme, he has used with great benefit the extract of belladonna, by means of frictions round the orbit. In a day or two the inflammation completely disappeared, and vision was practicable.—*Ibid.*

24. *Suppression of articulate speech during several months, in consequence of*

a slow disorder of the stomach.—Dr. G. STRAMBIO, who records this case in his new *Giornale Critica de Medicina Analitica*, attributes the loss of speech to a spasmodic irritation of the larynx, the result of sympathy by *consensus* with a chronic gastritis, or an irritation of the gastric nerves. To a similar *consensus*, with chronic gastritis, he refers a *bulimia*, with an intermittent sensation of choking (*globus hystericus*). The same writer relates a case in which a tænia was expelled by the use of the *bark of the root of the wild pomegranate.*

In the *Giornale Critica* for March, 1826, is a memoir by C. NARDI, on the *advantages of cold bathing, and cold affusions in diarrhœa and dysentery.* The practice is not a new one, and we wonder that Dr. STRAMBIO has not stated the prior claims in this respect of his countryman, GIANNINI.

25. *Doses and effects of Morphia.*—In an inaugural thesis, written by C. N. VAN ENSPYCK KLEYNHOFF, and published at Munich, we meet with an account of several experiments performed with the alkali and its salts on animals, by MULDER, NUMAN, and DE FREMERY. Twelve grains of morphia dissolved in nine drachms of alcohol, were given to a dog by MULDER at three minutes after one o'clock in the afternoon: the animal died on the following day at four o'clock, after a partial revival in the morning from the state of stupor, insensibility, and loss of muscular power, into which it had been thrown on the preceding evening and night. On opening the body, the lungs, and especially the right one, were covered with livid spots: the right ventricle was full of blood; the stomach and intestines were healthy; the brain was in a natural state, without effusion of blood.

To another dog six grains of the acetate of morphia, dissolved in water, were given: paralysis of the hind legs, salivation, somnolency, dilated, but contractile pupils followed. On the third day the animal had entirely recovered.

Six grains of the sulphate of morphia were swallowed by a dog, which recovered from the effects of the drug on the third day.

We shall not repeat here the symptoms produced by the introduction of morphia into the human body. GUMPRECHT, of Hamburgh, assures us that the acetate of morphia is preferable to the opium in dry, spasmodic and catarrhal cough, or which has an hysterical origin. In diarrhœa the author prefers opium to morphia; but the latter and its salts are, he thinks, more serviceable than opium in cases of violent pains.—*Bulletin des Sciences Med.*

26. *Catarrho-Rheumatic Ophthalmia.*—Under this head we find an interesting paper in the April number of the London Medical and Physical Journal, by Mr. MACKENZIE, of Glasgow. In two former communications he described the pure catarrhal seated in the conjunctiva, and then the pure rheumatic ophthalmia located in the sclerotica. In this disease the conjunctiva and sclerotica are attacked simultaneously: the former membrane by blenorrhœal or catarrhal, and the latter by rheumatic inflammation. In reply to some carping objectors to these niceties of distinctions as too German, our author very properly asserts, that "they are natural distinctions, anatomical distinctions, physiological distinctions, practical distinctions, of the greatest importance to all who have eyes to be cured, and to all who intend to cure them." The chief *causes* of the malady are atmospherical extremes and vicissitudes. Among the poor, the disease may in general be traced to cold, to which the patients have been exposed, particularly during the night, from deficient clothing and want of proper shelter. Like other inflammatory and rheumatic affections, it is more prevalent during north-easterly winds. It is much more frequently met with in old persons than in the young and middle aged. We have not room for a detail of the *symptoms*, with which we find Mr. MACKENZIE confounding some

of the effects of this variety of ophthalmia, such as ulceration of the cornea, onyx or effusion of pus between the lamellæ of the cornea, and hypopium or effusion of pus into the anterior chamber. The pulse is generally quick and sharp, the tongue white, and mouth ill tasted. The nocturnal pain completely prevents sleep, till about sun-rise. Catarrh sometimes attends, and adds to the febrile symptoms. The treatment is noticed under the following heads: 1. Venesection; 2. Leeches to the temple; 3. Scarification; 4. Calomel and Opium; 5. Opiate Frictions to the forehead and temple, about an hour before the expected attack of the circumorbital pain; 6. Belladonna, so as to keep the pupil dilated; 7. Blisters behind the ear, or to the nape of the neck; 8. Purgatives; 9. Sudorifics, such as Spiritus Mindereri, diluent drinks, the warm pediluvium, and a flannel underdress; 10. Tonics; such as Cinchona and the Mineral Acids, in the chronic stage of the disease; 11. Solution o f Nitrate of Silver, two to four grains in one ounce of distilled water, dropped upon the conjunctiva once a day, relieves the feeling of sand, and speedily removes the other symptoms of conjunctivitis. The application has no effect on the sclerotic part of the disease; 12. Vinum Opii, after the conjunctivitis and the acute sclerotitis have yielded; 13. Collyrium Muriatis Hydrargyri, one grain to eight ounces of water, to be used milk-warm three or four times a day; 14. Unguentum Precipitati Rubri, smeared along the edges of the eye-lids at bed time; 15. in cases of onyx, Mr. M. recommends to leave the matter to itself, and not to evacuate the effused purulent fluid. In venesection from the arm, we may detract, according to circumstances, ten to thirty ounces of blood; and the same quantity the day following, if the symptoms are not greatly relieved. Leeches to the temple are particularly useful when applied soon after venesection. Scarification of the conjunctiva of the eye-lids proves useful in cases of chemosis. The best purgatives are brisk doses of calomel and jalap at the beginning, and then a gentle laxative every morning during the course of the disease.

27. *Peritonitis Cured by Mercurial Frictions.*—M. VELPEAU, in the Revue Medicale for January last, recommends, in a puerperal peritonitis, two drachms of mercurial ointment to be rubbed in on the surface of the abdomen, and the remedy to be repeated every two or three hours. After two or three frictions, should the symptoms not be ameliorated, he directs the belly to be anointed with oil, and washed with soap and water, and then the frictions to be renewed. The frictions should be continued some time after marks of salivation have shown themselves. The patient is to be kept in a temperature considerably elevated, and carefully guarded against cold currents of air. The mercurial ointment seemed to save life when free leeching had no beneficial effect.

28. *Gangrenous Erosion in Children.*—This disease, by no means of unfrequent occurrence, has not until lately excited the attention of medical men. It has received various names, such as cancrum oris, gangrenous sore mouth of children, &c., and was noticed by HUXHAM, as a sequela of measles, and by WILLAN, as occasionally following scarlatina. Mr. THOMPSON of Whitehaven, who designates it by the above title, speaks with great confidence of the curative powers of the balsam of Peru, (Med. and Physical Journal, London,) applied to the sores. The disease generally makes its attack, according to Mr. THOMPSON, in weakly, ill fed, and ill clothed children; and is a consequence of debilitating complaints, occasionally, in those of better condition. "I have observed," says this writer, "that it commences more frequently at the junction of the skin and mucous membrane of one part or other of the lip, and spreads on both sides, with equal rapidity, to parts in the neighbourhood. The action is inflammatory, ending almost immediately in mortification, and this with such quickness that sometimes the

cheek becomes entirely destroyed in a few hours." Dr. CUMMIN has written a good paper on this subject, under the title of *Cancrum Oris*, in the fourth volume of the *Dublin Hospital Reports*. In most instances he thinks that the ulceration begins in the gums, and extends by continuity of surface to the lips and cheek; but sometimes it commences in the lining membrane of the lips or cheek and extends thence to the gums. The period of first dentition is that in which the disease is most liable to make its attack; though it is frequently seen in children between three and seven years of age. It is met with according to Dr. CUMMIN in children circumstanced in the same way as those indicated by Mr. THOMPSON; with the additional remark of the former gentleman that in every instance of the most formidable variety of the disease which he has met with, the constitution had been debilitated by the existence of previous and long subsisting disease. Dr. C. also cites a paper by Dr. MARSHALL HALL, in the 15th vol. of the Edinburgh Medical and Surgical Journal, in which that writer states, "that in all the cases which have come to his knowledge, this affection had been preceded by fever, acute disorder of the digestive organs, typhus, inflammation of the lungs, variola, rubeola or scarlatina." Dr. C. has three varieties of the disease. The first occurring in infants at breast is the mildest and most manageable, and would seem to require little else than the promotion of free alvine evacuations; local applications are seldom necessary. When we are to use them, a little honey and borax, or a mixture of muriatic acid in honey in the proportion of a drachm to the ounce may be advantageously applied by means of a feather or camel's hair brush to the ulcerated surface. In the second variety in which the ulceration is predominant and associated with a torpor of the bowels, or some depraved state of the biliary secretion, Dr. C.'s chief reliance is, after having cleared out the alimentary canal by a brisk cathartic, an alternation of mild mercurials with aperients. The local applications which he has found most useful are the black wash, and a diluted solution of muriatic acid in honey, in the proportion of a drachm to the ounce. As soon as the general health is established, the ulceration will assume a healthy appearance and heal. In the third variety of the disease, or that in which the gangrene is predominant, let us do what we may, Dr. CUMMIN believes that a fatal termination will generally be the consequence. In a few instances, however, in which the disease had made considerable progress, he has known recovery to take place under the administration of the sulphate of quinine and carbonate of ammonia; but in none of these cases had the ulceration extended so far as to involve the outside of the lips or cheek.

We have heard an experienced practitioner (Dr. JOHN W. MOORE) of this city, speak with great satisfaction of the good effects of diluted pyroligneous acid as a wash in ulcerated mouths of children. But, for the most ample information on the subject of this disease, we may refer to the paper of Dr. COATES, in the second volume of this Journal.

29. *Action of Opium.*—M. CHARRET, in a memoir "On the Comparative Action of Opium, and its constituent Principles on the Animal Economy," after giving his view of the composition of this drug to be meconic acid, morphia, (which combines with it,) an extractive matter and narcotin, goes on to speak of its effects on living animals. In man it may act in three ways; 1st. On the encephalon, there determining a sanguineous congestion; 2nd. On the cephalo-rachidian centre, irritating and causing convulsions; 3rd. On the contractile fibre, producing a direct sedative effect. Mr. C. thinks that opium does not act unless absorbed. He considers the watery extract the surest preparation. According to this writer, opium is more efficacious than morphia in intermittent fevers, but the latter is preferable where we fear congestion, or in

phthisis, where the sweats are to be repressed. The effects of narcotin were in Mr. C.'s hands extremely variable, and much resemble those of morphia.

30. *Effects of Green Tea.*—Mr. NEWNHAM, in "Some Observations on the Medicinal and Dietetic properties of Green Tea," mentions its power in his own case of allaying distressing head-ach, throbbing of the carotid arteries, &c. But this exemption from cerebral uneasiness was purchased by many very painful sensations, such as an almost insupportable anxiety about the precordia, palpitation and fluttering of the heart, general tremor and a peculiar distress, which the writer says he found it impossible to define or describe by words. It appeared to him that the first and immediate influence of the beverage was excited on the brain, and that the centre of the vascular system was affected secondarily and as a consequence of such influence. His pupils made experiments on themselves by drinking a strong infusion of the green tea, and experienced similar effects to those indicated above.—*Lon. Med. and Physical Journal, June.*

31. *Ointment of Iodine and Calomel.*—The superior powers, in certain cases, of the united action of mercury and iodine, has led physicians to the use of the preparation composed of these two agents in the form of *proto* and *deuto-iodide of mercury;* occasionally, however, we may prefer the simple mixture of the iodine with the mercury, and it is to meet this wish, that MM. PLANCE and SOUBERAIN indicate the following. ℞. Lard 48 parts, iodine 1 part, mercurius dulcis (calomel) 1½ part. The iodine to be first united with the lard and then the calomel added. In other proportions of these ingredients, there is a decomposition of the calomel by the iodine and either the production of corrosive sublimate and deuto-iodide of mercury, or if the iodine be in excess, the surplus remains mixed with these two salts, or finally, if the calomel be in excess, there results a mixture composed of calomel undecomposed, corrosive sublimate and the *proto-iodide of mercury*, with a small quantity of the *deuto-iodide.*

32. *Dysentery.*—In a succinct account of this disease, as it prevailed at Tours in France, during the autumn of 1826, much stress is laid on the good effects of the long popular practice of giving opium to allay the nausea, colics, tenesmus and frequent dejections, so distressing in dysentery. The medicine was given by the mouth, and with injections. Another remedy, also of long usage in the disease, and eulogized in very strong terms, is the sulphate of magnesia, (Epsom salts) administered daily in doses of from two to six drachms, alternately by the mouth and per anum.

In those cases treated empirically, there were many unpleasant symptoms and effects displayed, such as conjunctivitis going on to chemosis, and more particularly pains and swelling of the larger joints resembling articular fibrous rheumatisms. Local depletion from the eye by scarifications, and from the joints by leeches and cupping, followed in the latter by emollient and topical baths and blisters and regular compression, was the most successful treatment.—*Journ. Gen. de Médecine, &c.*

33. *Alcoholic Extract of Strychnia.*—This medicine was given in pills of half a grain night and morning, in a case of rheumatic paralysis, with entire success, after the lapse of three weeks; and in the same quantity and at the same epochs, it cured nocturnal incontinence of urine in two boys, the one thirteen, the other fourteen years old, who had been subject to this infirmity from birth. The medicine was used for a month.—*Archives Gén.*

34. *Counter stimulant Practice.*—In the *Giornale Critica de Medicina Analitica* for January, edited by Dr. GIOVANNI STRAMBIO of Milan, we find a long essay by the editor on the modus operandi of emetics and purgatives, especially the tartrate of antimony and potassa, or the tartar emetic (*tartaro stibiato.*) Dr. STRAMBIO gives the histories of various affections in which the tartar

emetic was administered in large doses, and adds his own commentaries on the treatment of these cases. The first is of a man with pleurisy, who in the first period of his disease, had been bled six times, (amount not stated) and had eighteen cups applied over the pained side. After his introduction into the hospital on the 5th of May, 1808, his pulse being small, frequent and vibrating, with short and difficult breathing and cough, eighteen grains of tartar emetic dissolved in a pint of rice water were prescribed; and in the evening twenty-four grains were ordered. 6th, Morning. The oppression of breathing is less; thirty-six grains of the tartar emetic were then prescribed. Evening: the oppression is greater; thirty grains given, and a bleeding practised. Blood buffy. During the 7th, 8th and 9th, the difficulty of breathing is less; a hundred and forty-four grains are taken in the day. 10th. The patient is better; ninety-six grains directed. 11th. A diminution of pain, and general feebleness; no vomiting or diarrhœa, or œdema, or palpitation or pain in any part. The dose of the remedy is diminished to seventy-two grains. 12th and 13th. The patient is almost apyretic and has an improved aspect; takes forty-eight grains. On the 15th, the apyrexia is complete; the appetite continues; takes thirty-six grains; two eggs. 16th. Every thing goes on well: takes twenty-four grains. The convalescence was slow but progressive, and the man left the clinical ward on the 28th of May, having taken five hundred and fourteen grains of tartar emetic in ten days.

Other cases of a similar nature are recorded by Dr. **Strambio**, who comments after his manner on each, and whilst he admits the utility at times of the antimony, is far from being a convert to the Rasorian doctrines of counter-stimulus, or willing to adopt the explanation which it offers of the modus operandi of the medicine. He intimates indeed with tolerable plainness, that the *red spots* and diffused *red tint* of the villous coat of the gastro-intestinal canal, observed in the body of a young man dead with pleurisy on the eighth day of the disease, were to a certain extent produced by the tartar emetic which had been administered. The patient had diarrhœa before his death. Dr. S. admits, however, in his commentary on another case, that it shows conclusively the sedative action of tartar emetic, as was evidenced by the less than natural heat of the skin under its use, and the absence of organic lesions in the thoracic and abdominal cavities after death. Here our author is in opposition to **Broussais**, who argues for the stimulating and irritating agency of the antimony on the gastro-intestinal mucous surface. The Italian writer thinks that this medicine at first irritates the gastric nerves, then the mucous crypts; and that by augmenting the dose or continuing its use, these nerves are thrown into a state of stupefaction, which is extended to the respiratory nerves; though the tartar emetic continues to irritate the mucous glands, and sometimes even the sanguineous capillaries. Were I, continues Dr. S., to say that the disappearance of the pulmonic phenomena is an immediate effect of the torpified pneumo-gastric nerves, should I perchance be advancing an hypothesis destitute of foundation or reason?

He is even inclined to go still farther, and to suppose that this medicine has an elective action on the pneumo-gastric nerve, or in other words, that this nerve feels a particular *aversion* or *fear* (if the word is allowable) when in contact or relation with the agent. Dr. S. intimates in fine that the pneumo-gastric nerve is not irritated by the emetic tartar, unless the latter be in direct contact with it; and he instances in proof of this position the alleged facts of this salt being introduced by artificial means into the jejunum, ileum and large intestines, in which the filaments of the above nerve do not ramify, without vomiting being produced. Numerous counter facts and experiments might be adduced, we think, to invalidate, if not destroy this last position of Dr. STRAMBIO. We may perhaps resume the consideration of this subject on a future occasion. We cannot however conclude without protesting against the caption of an article in one of our London Contemporaries, which he has chosen to designate as a "Specimen of Italian practice," conveying thereby a harsh and very unjust censure on Italian Medicine, the more uncalled for in this instance, since the prevailing doctrines and practice in Italy are anti-BRUNONIAN, and in direct opposition to those indicated in the case above alluded to. Because an ignorant physician chooses to overlook all pathological phenomena, and give quinine and stimuli when he ought to have depleted freely, and pursued the antiphlogistic treatment to its full extent, is the national reputation to suffer, the more especially when, as we have already intimated, the predominant national opinions are in direct variance with the individual case selected for criticism? Would not the Editors of the London Medical Repository and Review think our conduct very unfair were we to introduce a notice of the "Medical and Surgical Cases" of Mr. EDWARD SUTLEFFE, under the head of "Specimen of English Practice and Medical Logic?"

35. *Metallic Tremor observed as an effect of mercurial treatment.*—This is the title of an essay by Dr. COLSON, a physician at Noyon, and reported on by the French Academy of Medicine. Frequent notices have been taken of the tremors in persons who have worked in mercury; but Dr. COLSON has the credit of being the first to describe that produced by the use of the metal for the cure of disease. He gives six cases in which the metallic tremor was caused by the employment of the liquor of Van Sivieten, and mercurial frictions. The patients were all females of a nervous habit. The best curative means for this malady is first to discontinue the use of the mercury, and then to have recourse to tepid bathing and sudorifics.—*Rev. Med.* (*Mai.*)

36. *On the use of Blood-letting in the cold stage of the paroxysms of Intermittent Fever.*—In our last number we made our readers acquainted with the recommendation and use of the lancet, by Dr. MACKINTOSH, in the cold stage of intermittents. The present heading is the title of a paper by Dr. T. RIDGWAY, inserted in the London Medical and Physical Journal for July last, on the same subject. We cannot acknowledge ourselves as converts to the pathological view, which these gentlemen give of the cold stage, and of the consequent good effects of bleeding in it, whatever experience shall hereafter show regarding the propriety of the practice. We are rather sceptical as to "the shrinking of all the external parts of the body" being a cause or necessary accompaniment of a "concentration of fluid" in the interior, or of an over distended or congested state of the viscera; nor do we believe that the efficacy of bleeding in such a condition of the system depends on a reduction of the volume of the circulating fluids, and the adaptation of their quantity to the capacity of the parts now charged with containing them. The whole hypothesis partakes too much of hydraulics to be physiological, and *a fortiori* pathological. Dr. RIDGWAY, having discovered that bleeding just before the expected accession of the paroxysm rendered it much milder, was in the habit, as military surgeon, of visiting the soldiers labouring under the malady (in Spain) about an hour before the coming on of the fit. On one occasion, however, the paroxysm had anticipated its former period considerably, and when Dr. R. arrived, the cold stage was distinctly formed. "Disappointed at this, and anxious to save the man from a third paroxysm, as violent in all probability as the former, I determined (continues our author) to proceed, regardless of this unexpected obstacle, and took from his arm twelve ounces of blood. To my utter astonishment, the cold, and other stages of the paroxysm glided away imperceptibly, the disease was gone, and after awaiting the next

period of accession, the soldier returned to his duty, and never after made his appearance at the hospital." The opinion ventured on by Dr. RIDGWAY, that when blood-letting has been employed in continued fever before the disease has had time to be fully developed, it has been much more effectual than at a later period, is by us in this country received as an unquestionable fact, substantiated by the most ample experience ever since Dr. RUSH so ably and zealously enforced in his public lectures, the necessity of this practice, not merely in continued fever, but in all diseases in which the use of the lancet is indicated. In our last number we had occasion, when noticing Dr. LEFORT's essay on yellow fever, to give his experience that if he was able to bleed immediately after the accession once, twice, and even three times, four out of five patients recovered, whereas, bleeding practised even on the day after the invasion, presented six times less chance of success.

37. *A New Styptic.*—At a meeting of the members of the Medico-Botanical Society, holden lately, (Sir GEORGE M'GREGOR, the president, in the chair,) Mr. FROST brought before their notice a specimen of a plant, termed by the inhabitants of Peru, *Matica*, and used by them as an external styptic. It appears to be a species of Piper. Its leaves are of a cordate shape, and very tomentose on their under surfaces. They are coarsely pulverised, and in this way externally applied.—*London Med. and Physical Journal.*

38. *Bi-carbonate of Soda in Calculous Disorders.*—Dr. PIERRE, of Bourges, gave to a young girl, tormented by calculi in the bladder, a solution of the bi-carbonate of soda, to the extent of two pints daily: the effect was a cessation of the pain, and the ejection by the urethra of small gravel; and after the lapse of a certain period, the catheter by which the physician had before distinctly felt the calculi, no longer gave any evidence of their presence.—*Nouv. Bibliotheque Med.*

39. *Extract of the Bark of the White Walnut, (Juglans Cinerea).*—The following is a notice of the peculiarities in the action of this indigenous medicine, which concludes a very sensible paper on the epidemics of Missouri, by Dr. M'PHETERS, in the fourth number of the Western Medical and Physical Journal, of Ohio, edited by Drs. DRAKE and WRIGHT. "When reduced to the consistence of a thick honey, and combined with jalap or rhubarb, pulv. ipecacuanha and Castile soap, so as to form pills as already stated, it acts as a mild effectual purgative, without producing sickness, griping, or distress of any kind. Its operation is slow, but certain and efficient, always bringing away morbid secretions, and never producing frequent or watery stools. Its action is peculiar in relieving irritation, exciting secretion, and preserving the strength of the patient. It frequently acts as an anodyne, affording the restless patient a good night's rest, and not operating as a cathartic till morning. In dysentery it allays pain, relieves tenesmus, stops the frequent discharges, and produces ease. In autumnal fevers it effectually brings away morbid secretions, without irritating the viscera, and disposes the parts to a healthy action. In dyspepsia it relieves cardialgia, prevents acrid secretions, and keeps the bowels gently open. Finally, in obstinate constipation, it operates as thoroughly and certainly as calomel, or the drastic purgatives, without occasioning the sickness and irritation which they excite. Besides the above combination, I have made use of it in a variety of others, such as with calomel, ginger and squills, varying the proportions, according to the indications presented by particular cases. Those who have used the various combinations, give it the preference to any anti-bilious or laxative pills they ever used. I have always introduced Castile soap into the different compositions, for the purpose of correcting an acrimony which has sometimes been found in it. I have commonly prepared the extract from the inner bark of the trunk of

a middle aged, healthy tree, in the spring of the year." pp. 210, 11. Although this language may appear to some too eulogistic, yet very many experienced practitioners and sensible heads of families in the south and west, by whom the medicine is freely prescribed, will be found to bear testimony to the general accuracy of Dr. M'PHETERS' statement. The late Dr. BENJAMIN SMITH BARTON, in his "Collections for an Essay towards a Materia Medica of the United States," mentions his belief of the extract of the juglans cinerea, or butternut-walnut, possessing something of an anodyne property. The dose, according to this writer, is from ten to thirty grains—more may be frequently taken with advantage.

We rejoice to see our western friends of the Medical and Physical, fairly enlisted in the course of periodical medical literature, as we feel confident that great and extensive good will grow out of their regularly sustained exertions, knowing, as we do, the talents and acquirements which they bring with them for the performance of their task.

40. *Intermittent Hiccup.*—An interesting history of this form of disease, is given in the *Nouvelle Bibliotheque Medicale*, by M. HELLIS, physician to the Hotel Dieu at Rouen. The subject of the complaint was a young man, who, when seven years of age, experienced at first a feeling of weariness, short of pain, about the last dorsal vertebra; and soon afterwards a similar sensation in the epigastrium, followed by a hiccup. This last would disappear and return at irregular epochs; but its renewal was preceded by the above mentioned sensation, which passed from the back to the epigastrium. After a time, however, this sensation, which the patient compared to the pressure of a light cloud, or a friction of a silken tissue, and which the author designates by the term *aura*, abandoned the epigastrium, and visited other regions of the body; sometimes went upwards to the neck, at other times traversed the chest, abdomen, thighs and legs: but it seemed to be more particularly directed on the upper extremities. The patient could feel it descend along the arm and forearm to the fingers, which were affected by a slight rigidity. On one occasion, and this is the most surprising part of the narrative, having without thought closed his hand, he was not a little surprised to discover that the hiccup ceased immediately, to be renewed so soon as he opened his hand. It was of no avail for him to close his hand when the *aura* or vapour had not descended to it, the hiccup would still continue. But so long as the aura was kept imprisoned in the hand, he enjoyed exemption from the hiccup, he could not, however, on account of the weariness thereby induced, keep his hand in this state of contraction for a longer period than fifteen days, and during this time he was in the practice of folding a handkerchief round his fingers, that he might not yield to any involuntary movements of extension: he was especially careful to adopt this precaution before retiring to bed. Nine years passed away in this manner, after which he came under the care of Dr. HELLIS. His appearance and constitution presented nothing remarkable. No disease, eruption, or accident whatever, had preceded the invasion of the malady for the last two years. He is apprized of the coming on of the hiccup by a feeling of tension and swelling in the region of the back: an attentive examination of this part exhibited a round, and somewhat depressed cicatrix on the left, and about an inch from the median line. Its origin could not be ascertained. A new phenomenon was now added to the first. After having kept the left hand flexed for a fortnight, he experienced a sensation, similar in all respects to the first, in the back, whence a new aura escaped, and renewed the hiccup. Wandering like the first, it was, when it reached the right hand, imprisoned, and the hiccup immediately disappeared. When Dr. HELLIS requested him to open both hands, he felt two separate *auræ* traversing freely the nervous ramifications, and

seeming to approach and avoid, or cross each other, but never to be joined or confounded in one. The hiccup during the time was extremely violent. A residence in Rouen was found to aggravate his disease, and he returned to his paternal farm. During two years longer he was still tormented with paroxysms; the hiccup was more usually double than single, but the fits were shorter. After the expiration of this time he was freed from the disease, and a year of entire exemption had elapsed when he presented himself to Dr. Hellis. This gentleman thinks the cure complete, on account of the formation of a nodus on the middle joint of the under finger of the right hand. Similar growths are coming out on the two fingers of the left hand. In changeable weather he feels flying pains in his limbs, and particularly in the deformed joints.

V. SURGERY.

41. *Chlorides of Lime and Soda.*—Under the chemical head of this summary will be seen the methods by which these salts are prepared. They have been for some time past attracting much attention in France, through the recommendation of M. Lisfranc, and lately Mr. Alcock has fixed the attention of the English surgeons upon their powers of destroying unpleasant effluvia, and, as it is affirmed, contagious and infectious poisons; but, as the reviewer in the Medico-Chirurgical Review well observes, to destroy an odour is one thing, but to destroy infectious matter is something very different.

From the Revue Medicale for November, 1826, we learn, that in the year 1793, the chloride of lime (the oxymuriate of lime) was employed by M. Percy, against hospital gangrene, and since that period by various physicians, in numerous external diseases. Mr. Alcock details many of these complaints (vide Medico-Chirurgical Review, for April, 1827,) in which the French surgeons, particularly M. Lisfranc, have found this article very useful. In arresting the *gangrenous inflammation*, it is considered peculiarly advantageous, destroying the effluvia, hastening the process of sloughing and of granulation; it is advantageous in *simple and in old ulcers* where a stimulus is required; in some cases of *diseased uterus;* in *burns and scalds*, in their different degrees; in *cancer; corroding tetters; herpes; ulcerations of the mouth; softening of the gums; angina gangrenosa; in severe ptyalism; in simple and syphilitic ulcers of the throat; in affections of the throat, in small pox, in measles, and in scarlatina, &c.*

In the extensive hospital of La Pitié, many of these observations have been confirmed by Lisfranc, especially as regards the great efficacy of the chlorides in burns of the first and second degree, as well as in suppurating wounds, simple ulcers, &c. "But to the immense advantage of hastening cicatrization, the chorides of lime, and of soda, join the remarkable property of rendering the subsequent cicatrix firm, and very often almost as *moveable as the original skin.*" (Rev. Med. Nov.) In those cicatrices obtained by ordinary means, there is chiefly a contraction of the edges of the ulcer with very little new formation; hence, the skin is tense, the cicatrix firmly attached to the subjacent parts and tightly stretched, so that it often gives away under muscular efforts. Hence the reason, why so few indolent and even recent ulcers on the extremities heal in a permanent manner. "By the peculiar stimulation, however, of the chlorides of lime, or of soda, the whole ulcerated surface rapidly secretes that plastic matter (coagulable lymph) which forms the matrix of the cicatrix, and which, under the influence of this remedy, becomes organized with so much promptitude and energy, that the edges of the ulcer have not time for contraction." The surface of the ulcer remains nearly of its original size, and the new membrane, covering every portion, and quite loosely attached, yields readily to every muscular exertion, and very rarely again ulcerates.

These remedies should not be employed during the activity of the inflammation, nor in irritable ulcers, nor where the edges of the ulcer are indurated. These states are to be previously removed by appropriate measures, especially by repeated *leeching*. So rapid also is the formation of the cicatrix, that the application of the lotions should not be made when the level of the granulations is above, or below, that of the skin, as otherwise the cicatrix will be irregularly elevated or depressed. Three advantages, therefore, result from these chlorides in the mangement of ulcers, according to LISFRANC; the *rapidity* with which the cicatrix is formed, its *solidity*, and its *mobility*. He uses a solution of the chloride of lime in water of three degrees of strength by the chlorometer of GAY-LUSSAC; lint wet with this, being applied to the ulcer and secured by compress and bandage; the whole being kept moist by this fluid, occasionally applied.

In some very old and large ulcers, it was found necessary, in addition to this plan, to keep the limb at rest for two or three months after the ulcer had cicatrized, that the cure might be permanent.

In the Revue Medicale for January, 1827, we have another report from LISFRANC, on the efficacy of the chlorides in chronic fistula, and we there find the following propositions, which are worthy of attention.

1st. The chlorides of soda and lime are stimuli, capable of exciting inflammation, and hence should not be applied too near those organs whose inflammation might be dangerous.

2nd. In general, these chlorides have more power than any other therapeutical agent, in exciting that degree of inflammation necessary to the formation of that plastic matter, which is, with great promptitude, converted into good cicatrices.

3rd. They excite the organic sensibility of those portions of the skin which may be completely denuded of their cellular tissue, and cause it to adhere to the subjacent parts, when other measures have failed; thus avoiding those deformed cicatrices resulting from great loss of substance in parts habitually exposed.

4th. Employed in the treatment of fistulæ, the chlorides, at three degrees, sometimes diminish the suppuration, sometimes arrest it at once. It is in this case, that they are almost always successful, care being taken to regulate the strength of the injection according to circumstances. Some inflammatory action should be excited; but if this be too great, emollients, leeches, &c. should be employed. As the inflammation declines, the surgeon should employ, if the localities permit, pressure on the course of the fistula.

5th. By allowing the chloride of soda to remain in the fistula, this inflammation will be more powerfully excited. In some cases, we have seen the indurations which surround the sinus, discussed by the chlorides, but we always advise that this complication be combated by appropriate measures, before the injection be employed.

Cases are given in illustration. The injections were renewed two or three times a day, and lint, wet with the lotion, was applied to the orifice of the sinus.

42. *Bronchotomy successfully performed for Laryngitis.*—Dr. WILLIAM CULLEN, being consulted on the 14th of March in a case of laryngitis which had commenced in November, and in which the symptoms were now very urgent, resorted immediately to the operation of laryngotomy, to prevent

the consequences of impeded respiration. A small vessel was opened, too small for a ligature, so that "at each inspiration some blood was *sucked in by the wound*, but luckily it did not annoy the patient;" a tube was inserted, and, after a paroxysm of coughing, was tolerated—respiration became quite free, and the other symptoms more favourable. An antiphlogistic course was pursued with advantage, and, by the 28th of March, the tube was removed; no cough or difficulty of breathing remaining. The opening into the larynx gradually closed, and by the 20th of April was perfectly healed. —*Ed. Med. and Surg. Journal for July*, 1827.

43. *Glossitis terminating by Suppuration.*—In the Nouv. Bibliothèque Med. for May, there is a case detailed of original and local inflammation of the tongue in a man, aged 45 years, of good constitution, and free from other disease. On the 12th of February he perceived a small white pustule (bouton) at the inferior part of the tongue, and on the right side; on the 13th, uneasiness increased, mastication and deglutition painful; 14th, disease aggravated—he entered the hospital of St. Anthony; sensation of suffocation. V. S. ad ℥xiv. twenty leeches to neck; 15th, tongue much swollen, and protruding, covered with albuminous effusion, salivation, thirst, pulse full and frequent; V. S. ℥xvj. fifteen leeches to neck, &c. &c. *Evening*, V. S. ℥xij. 16th, tongue less red, more bluish, and smaller; albuminous exudation thicker; voice, &c. &c. improving; salivation continues; 17th, the same; 18th, some ulceration on the left side, and some discharge of a thin white pus from the original pustule; 19th, lanced the tongue, some pus evacuated; 20th, tongue diminished in size. The patient continued improving, and was discharged perfectly well on the 4th of March.

It would appear that this disease is rare, and that suppuration of the tongue is unfrequent; resolution or gangrene being the more frequent results of this spontaneous inflammatory action.

44. *Glossitis cured by Incisions.*—As this disease is sometimes very rapid in its progress, and occasionally fatal from want of information or boldness in the surgeon, we cheerfully condense the following very interesting case from the Ed. Med. and Surgical Journal for July, in which the practice recommended by Boyer, and others, of making deep *longitudinal* incisions into the inflamed organ, was immediately successful. The inflammation appears to have depended on some internal cause.

On the 9th of February, a healthy man, aged 35, consulted Mr. Charles Martin, and informed him, that on the evening of the 7th, he felt an acute pain in the tongue, at first so circumscribed that he could cover the part with his finger, but it rapidly spread, the tongue increased in size, with fever, head-ach, and beating of the lingual arteries, so that this organ protruded from the mouth, separating the jaws for at least half an inch. The symptoms were urgent—V. S. ad ℥xxx: in an hour repeated the operation to the same extent with advantage. In three hours the disease had rapidly increased; respiration difficult, even through the nostrils; through the mouth it was suspended; pulse fluttering; countenance flushed and anxious. Suffocation being thus threatened, a deep incision was made on the most prominent part of the right side of the tongue, which gave issue to blood, and to a puriform matter; two other incisions were then made, one in the middle, and another on the left side; but no purulent fluid was evacuated; the bleeding was promoted by gargling with warm water. The beneficial effects were immediate; in a quarter of an hour the patient could articulate; respiration became free and easy, and his countenance lost its anxiety. He soon recovered.

In imitating this practice, the necessity of making the incisions in a *longitudinal* direction, should be remembered, and also of making them deep, care being taken to avoid the ranular arteries. Thus the relief is usually great, and gangrene and suffocation often prevented; should they not be immediately effectual, time may be gained, and life even preserved by the operation of Bronchotomy. See the review of Dublin Hospital Reports, page 331 of this number, for Dr. **Graves'** cases of glossitis.

45. *Restoration of a Lost Nose.*—Mr. **Robert Liston**, of Edinburgh, has successfully performed the Taliacotian operation from the skin of the forehead, on a young man, in whom the whole cartilaginous part of the nose was destroyed by ulceration, consequent upon a blow. Two drawings of the patient, before and after the operation, are given, by which it would seem, that the deformity was almost completely obviated, and the cicatrix on the forehead quite trifling:—" in a short time, the probability is, that no scar will be perceptible."—*Ed. Med. and Surg. Journal for July.*

46. *Axillary Aneurism.*—Dr. **Arendt**, of St. Petersburgh, Russia, on the 6th of June, 1826, secured the left subclavian artery above the clavicle, for an axillary aneurism. The ligature came away on the 16th day after the operation; in four weeks the wound was completely closed, and the perfect use of the arm regained.

"Dr. **Gibbs** was the first surgeon at Petersburgh, who attempted to apply a ligature round the subclavian artery; he has related a successful case in the Transactions of the Medico-Chirurgical Society of London. The other great arteries have likewise been repeatedly tied with success, in Russia."—*London Med. and Phys. Journ. for June*, 1827.

On the 7th of March, 1823, Mr. **Brodie** secured the subclavian artery for an axillary aneurism of about the size of a hen's egg, in a man of florid complexion, and of good constitution, aged 30 years. The symptoms were all favourable after the operation, the tumour diminished, the arm warm, &c. *March 8th*—In the morning, well; evening, fever, furred tongue, &c. &c., with much pain in the bowels. *9th;* fever continues, breath fœtid; afternoon, profuse perspirations. *10th;* before 1, A. M. was suddenly seized with severe burning pain, extending down the whole arm to the palm of the hand, lasting three or four minutes, and followed by a severe rigor of twenty minutes' duration, the skin hot and dry, followed by sweating. *Morning;* comfortable, foul tongue, &c. pulse 84, and soft, *wound gangrenous;* the affected limb has been warm the whole time. *11th;* no rigors, bowels uncomfortable, sloughs at wound not extending, no pain. Half past 2, P. M; another rigor, sweating continues since the afternoon of the *9th*. 6, P. M. Pulse stronger; V. S. ad ℥viij. Right elbow much swollen, and painful. *12th;* worse; at 3 o'clock, another rigor; prostration; arm warm as usual; wound not more sloughy, but darker; no ulceration. Died at 2, A. M. March 13th.

"The body after death had the appearance of gangrene, the whole of the right arm, part of the left, and part of both legs, becoming quite livid and soft; and on cutting into them, the muscles and other textures were found to be soft and putrid. The inner surface of the trachea had also a livid colour. The subclavian artery was plugged up, for about half an inch on each side of the ligature, which had begun to ulcerate through the vessel. The inner surface of the aorta was rather more red than natural, and the subclavian vein was of a dark colour; no disease in the heart, nor in any of the larger arteries; nor was any other appearance detected, to which the death could be attributed. It was remarkable, that the gangrenous appearance was less distinct in the arm of which the artery had been tied, than in the other limbs."—*Ibid.*

47. *Hernia through a Rupture of the Rectum.*—In the June No. of the London Medical and Physical Journal, a case is recorded of a rupture of the rectum through its anterior portion, in a female, (caused by vomiting,)

through which not less than two yards of the small intestine with its mesentery were protruded, part being expelled beyond the anus. M. **Brodie** could not succeed in reducing it through the slit in the rectum, until he made a longitudinal incision, two inches in length, through the linea alba, below the umbilicus, into the cavity of the abdomen. The fingers were introduced through this opening, and the protruded intestine was drawn back from its situation in the rectum, into the cavity of the abdomen. The patient's system did not re-act completely after the operation, and on the succeeding day, April 23, she died. Dissection revealed much peritoneal inflammation, and a transverse opening at the anterior part of the rectum, without any appearance of ulceration.

48. *Ophthalmia treated by the Sulphate of Copper.*—In the Edinburgh Journal of Medical Science, No. 4, Mr. **Teale**, after having long experienced the good effects of sulphate of copper in chronic ophthalmia, has detailed his success with this remedy in the acute inflammations of the conjunctiva, sclerotica and cornea. "The mode in which it has been employed, consists in slightly sweeping a crystal of that salt three or four times over the everted lower palpebra; the eyelid is then replaced, and the lachrymal secretion soon distributes the sulphate over the whole globe."

Warm water, or some warm milk or oil, may be dropped into the eye, should the pain, which usually subsides in a few minutes, continue. On the following day a decided improvement will be observed; and the operation may be repeated every 2nd and 3d day.—*Medico-Chir. Rev. July.*

49. *Nævi Materni.*—These marks on children often require attention from the surgeon, from a disposition which some of them manifest to enlarge, to bleed, ulcerate, &c. causing deformity, and becoming even dangerous. The vessels often increase so much, as to deserve the name given, by Mr. J. **Bell**, of aneurism from anastomosis. The proper practice has not been fully determined on, several methods having been proposed and adopted. The July number of the Medico-Chirurgical Review has several observations on this subject. Mr. **Wardrop**, having noticed that a natural cure sometimes occurs by the process of inflammation and ulceration,* applied a strong solution of corrosive sublimate to a nævus on a child's back; the skin ulcerated rapidly, destroying the substance of the tumour.

In No. 181 of the Lancet are recorded two cases in which the kali purum was applied so as to cause an eschar, which suppurated, and subsequent ulceration destroyed the tumours. Mr. **Hodgson** of Birmingham has proposed to inoculate the nævus, at several points of its circumference, with the *vaccine virus*, by which, it is said, the nævus is arrested in its progress, or caused to slough. Mr. **Earle** has thus operated successfully at Bartholomew's Hospital.

The London surgeons have lately employed, with *uniform success*, the ligature, single or double, according to the size of the tumour. Mr. **Lawrence** ties the ligature very tightly, and usually removes it at the end of 48 hours, to lessen irritation. "An infant four months old was admitted, with subcutaneous nævus on the middle of the dorsal portion of the spine, an inch in diameter. At birth, it was the size of a sixpence; when received, it resembled half a small orange, in size and form. It had a spongy feel, and was reducible by pressure to nearly half its natural size. Mr. **Lawrence** passed a needle and double ligature through the base of the tumour, and then separating the threads, drew them round, so as to encompass the whole base. The child cried incessantly the remainder of the day, and was convulsed in the night. Next day it was fretful, but took the breast towards evening. It was convulsed the second night. *3d day.* Some bleeding occurred, but it was suppressed by cold applications. *4th day.* Child very ill. Mr. L. sliced off two-thirds of the tumour, and applied lint, moistened with cold water. *5th day.* The infant much better, and takes the breast. *6th day.* The ligatures removed, and a poultice applied; and on the *7th day,* the tumour sloughed. The ulcer granulated kindly, and the child left the hospital cured."

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* Medico Chirurg. Trans.

In this case, Mr. L. allowed the ligatures to remain until the 5th day. Was the severe irritation here excited his inducement for recommending their removal in 48 hours? It will be remembered that this is the principle on which Dr. PHYSICK's improved method of removing scirrhous tonsils and other tumours, is founded. Vide Philadelphia Journal, vol. 1st. It should also be remembered that these nævi may often be advantageously extirpated as recommended by Mr. J. BELL; or isolated, when very large, by incisions, completely encompassing the tumour, as proposed, and successfully executed by Professor GIBSON.

50. *Abscess of the Liver discharging into the Pleura, successfully treated by Paracentesis Thoracis.*—In the London Medical Repository, No. 7, for July, Mr. HUGGINS relates the case of a man, aged 27 years, who, in October, 1825, was seized with severe pain in the region of the liver, difficult and painful respiration, fever, &c.; and was actively treated by V. S. cathartics, &c. &c. On the 6th of November, the patient seemed convalescent. In February, he was again seen, and all the symptoms, indicating effusion into the chest, (which opinion was confirmed by examination with the stethoscope,) paracentesis thoracis was proposed and executed on the 18th of Feb. About seven pints of sero-purulent fluid, with some offensive gas, were discharged, and the wound dressed with adhesive strips, so as to leave an opening for the escape of matter. A free expectoration of matter, and a copious discharge from the orifice, ensued; the patient continued improving, with a discharge of matter, as much as a cupful *per diem,* for at least thirty-six weeks. He, at length, perfectly recovered, the wound healing up; although, by the stethoscope, it would appear that the inferior portion of the right lung was impermeable to the air during respiration.

We have been so often disappointed in our post mortem researches, in not finding the expected consequences of inflammation in the liver, that we must have some doubt whether the seat of the original inflammation was not in the lungs, rather than in the liver. The condition of the lung, after recovery, would confirm this supposition.

51. *Scirrhous Testicle in the Groin.*—In the Heidelberger Chlinishe Annalen, is related the case of a young man, aged 20, in whom the left testicle had not descended, but formed a tumour in the left inguinal region. This, when he was five years old, was mistaken for a hernia, by a surgeon, who advised a truss to be applied, which, with much inconvenience and pain, was worn for twelve months. In June, 1825, pain was excited by a sudden exertion, followed by swelling, induration, &c. In December, 1825, the pain was incessant; and as the disease was in appearance scirrhous, extirpation was resorted to, although, from its upper and outer part, a kind of cord proceeded along the inguinal canal. The canal was slit up, and the cord found to be much hardened, and diseased as far as the internal ring: at which point it was tied and removed with the tumour. The peritoneum was opened and a portion of omentum protruded. After some severe inflammatory symptoms, every thing went on well, the ligature came away from the cord on the 15th day; and on the 30th of January, about five weeks after the operation, the patient left the hospital. In a month he returned, the cicatrix having ulcerated, and a deep, hard tumour being felt, accompanied with great pain in the cicatrix and loins. He rejected all treatment, and soon left the hospital.—*Medico-Chirur. Rev. for July.*

This case is valuable by exhibiting the necessity for accurate diagnosis in tumours about the groin; for it is not improbable, that the hernial truss was the original source of irritation in the above unfortunate case.

52. *A new Variety of Aneurism.*—Professor **Lallemand** of Montpellier, has described in the Repertoire, No. 4, an interesting case of aneurismal disease, of which the following is the summary, which exhibits the great value of the Hunterian operation for aneurisms.

Captain Firmin, after a wandering life, during which he suffered much from disorder of the stomach, at the age of forty-three, was afflicted with wandering pains, which, eventually, fixed themselves in one knee, but were relieved by leeches. This pain in the knee returned, with relief to his gastric disorder; leeches, &c. &c. failed. In three months a pulsation was felt in the joint, the knee increased rapidly in size, and the pain augmented. In March, 1826, he applied to M. **Lallemand.** His age was forty-five, but he had the appearance of being at least sixty years; his complexion was pale and yellowish, and his countenance indicated great sufferings. The right lower extremity seemed wasted, especially below the knee, which last was nearly twice its natural size, surrounded with varicose veins, and the skin tense and shining. The leg was bent on the thigh—all voluntary movements nearly obliterated; and when any motion was communicated to the joint, there was considerable pain;—head of the fibula very prominent—excessive pain extending from the head of this bone, and following the peroneal nerve. When the patient held in his breath, the veins of the knee became doubly dilated, and the skin blue. The same phenomena occurred when the limb was pendant; but when raised above the level of the body, the knee regained its natural colour, and the dilated veins disappeared. The upper extremity of the tibia was about double its proper size; and at the inner side of the ligamentum patellæ, was an oblong flattened tumour, resembling the half of an egg, communicating a distinct sense of pulsation, synchronous with the action of the heart, and accompanied by a feeling of expansion at each stroke. On the external side of the patella, in front of the head of the fibula, there was another tumour prominent beneath the skin, but very much smaller than the first, presenting, however, the same pulsatory movements as its neighbour. The pulsations in both could be completely stopped by pressure on the crural artery." After careful examination, M. **Lallemand** concluded that there was an aneurismal tumour developed in the interior of the tibia, which last had become enlarged and attenuated; and that the ligamentum patellæ, by offering a greater resistance than the parts on each side, had caused the appearance of the two neighbouring tumours.

Ligature on the crural artery at the middle of the thigh, was proposed and made—the artery was unusually thickened. The tumours were lessened in size, and all pulsation ceased. On the eighth day after the operation, the heat of the knee was above that of the other, the movements more free, the tumours diminished—the wound united by the first intention. The swellings continued gradually to diminish, and in two months the patient got out of bed. He eventually perfectly recovered, being freed also from the complaint of the stomach, under which he had so long laboured, by the regimen enjoined by his surgeon.

The above case induced M. **Breschet** to examine the history of bloody tumours involving the bony structure, some interesting cases of which he publishes, and he believes them to be of an aneurismal character, although the cases given are not so decidedly so as the one now given. **Dupuytren** recommended amputation, but **Breschet** seems to be more correct in advising that the artery should first be secured, especially when the complaint is recent. Should this fail, amputation should be performed.

We have not room for details. *Vide Medico-Chirurg. Review, for July*, 1827.

53. *Amputation at the Carpo-metacarpal Articulation.*—M. Gensoul, surgeon in chief at the Hotel Dieu of Lyons, has lately removed the hand at the articulation of the carpus with the metacarpus, preserving the thumb. The disarticulation was easily and promptly executed; some abscesses formed round the thumb, which were readily managed, and a complete cicatrix was formed. The motions of the radius on the carpus, and those of the finger and of the first metacarpal bone, were perfect; but the patient was, some time afterwards, attacked with inflammatory affections of the abdominal and thoracic viscera which caused his death. Journal Generale for *July*.

54. *Treatment of Varicose Veins and Ulcers.*—M. Lisfranc has lately announced, Journal Generale for *July*, that for some years he has preferred the practice of excision of the vein, cutting out a portion of the vessel for two inches or more, to that of the ligature or simple division. He objects to the simple division, because this tube is often in a state of hypertrophy, and enveloped in a lardaceous substance; hence the two orifices of the vein often remain patulous, and the atmospheric air finds ready admission into its canal, and there often excites a dangerous inflammation; but in excision the two extremities remain concealed by the integuments. Lisfranc reports, that since 1821 he has operated on seventy individuals; in all, the ulcers of the limb have cicatrized, and the cicatrix has been permanent. Six only have suffered from phlebitis, which was readily relieved by leeches placed immediately above the point where the inflammation was bounded. It is necessary that the saphena vein should be obliterated, and when the ulcer is on the median line both saphenas must be destroyed. "The operation should be performed on a *sound* part of the vein, for if a diseased portion be exposed, phlebitis is much more common." "Avoid operating too near the trunk of the body, because should this inflammation be excited, it will immediately extend to the abdomen and be with difficulty managed."

These cautions are important, and we would merely add, that the same practice has been revived some time since in this city by Dr. Hartshorne, and has been very frequently performed by this experienced surgeon, as well as by Drs. Parrish, Rhea Barton and others, and we have not heard that phlebitis has in any case ensued. We would, however, notwithstanding the observations of Lisfranc, still inquire what advantages excision of a portion of the vein can have, over the simple division of the vessel, in the valvular or oblique manner proposed by Mr. Brodie, and which seems to us the most scientific method of operating.

55. *Spina Bifida cured.*—M. Probart, of Hawarden, has communicated a case of spina bifida cured by repeated punctures, and discharge of fluid from the tumour. There was a loss of bony substance in the situation of the second lumbar vertebræ, and the lower extremities were completely paralytic. When the child was about three months old, the operations were commenced. After a few puncturings, there came on considerable inflammation in the integuments of the tumour, and the child had some smart convulsive paroxysms: but, by emptying the bowels, and applying leeches to the parts, the inflammation was reduced, and the convulsions ceased. The integuments covering the spina bifida became thickened, and then a plaster and compress were applied with pressure. By these means, the tumour was reduced, and ultimately disappeared, leaving a depression in its place.—*Medico-Chirurgical Review, July, from Lancet. No.* 186.

56. *Silk-worm gut Ligatures.*—In vol. III, p. 404 of this Journal, we noticed that Mr. Fielding had proposed ligatures of silk-worm gut, for securing

arteries, and that no bad consequences had followed the practice. In the Medico-Chirurgical Review for July, is detailed a case of amputation of the thigh, by Mr. Wickham, on a boy aged 9 years; in which "the femoral artery, four others, and one small vein which poured forth blood freely, were secured with silk-worm gut, made ductile by previous maceration in warm water: both ends of the ligatures were cut close to the vessels, and the integuments brought into contact by adhesive plaster from side to side."

On the fifth day, the second dressing was made; no suppuration. On the seventh day, all dressings removed, adhesion had taken place; dressings renewed. In the evening, they were disturbed by the restlessness of the patient, and the lips of the wound partly separated. Four weeks after the operation, the whole was firmly cicatrized; none of the knots of the ligatures had been observed; and as no pain or tenderness was excited by pressure on the extremity of the stump, there was good reason to believe that they had been absorbed. Twelve days afterwards the whole remained well.

57. *Bronchocele cured by a Seton.*—Eliza Gibbs, aged 13 years, was admitted into the Winchester hospital, in the autumn of 1826, by Mr. Lyford, for an enlargement of the thyroid gland, the growth of four or five years. The swelling was as large as an egg; unusually hard and moveable, increasing, and already rendering deglutition painful.

Prescription—Ung. potass. hydriodat. to be rubbed into the swelling night and morning; and the tinct. of iodine to be given internally. These measures were persevered in, until the latter part of February, 1827, with no advantage.

On the 12th of March, Mr. Lyford passed a seton through the tumour from above, downwards: some erysipelas and an offensive suppuration followed: the former soon disappeared; and within a fortnight, a reduction of the swelling was observed. *April 4th*—Discharge fœtid; some febrile excitement. *12th*—tumour less; discharge abundant and fœtid: patient can swallow without difficulty. *22nd*—swelling daily decreasing; fœtor less. *May 2nd*—Tumour not larger than a small chestnut, tender and hard to the touch; seton continued; patient left the hospital.—*Medico-Chirurg. Rev. July.*

58. *Fatal Hæmorrhage from a Varicose Vein.*—In the Gazette de Santé for May, 1827, M. Lebrun details the case of a female suffering from large varicose veins on each leg. At the cessation of the menses, these veins augmented; on the right leg, appeared a varix, of the size and form of a hen's egg, being a dilatation of the vena saphena: a smaller varix was also observed on the left leg. From a wound of the tumour on the right leg, half a pint of black fluid blood was lost; an ulcer succeeded, discharging about ℥iv (2 *serres*) of a sero-sanguineous fluid every day. The tumour disappeared, and was succeeded by a phlegmonous erysipelas, which yielded to suitable remedies, no trace of the varix being discoverable: but on the left limb the tumour was unaltered, and was afterwards accidentally ruptured; three to four pounds were lost immediately, before syncope ensued; the hæmorrhage returned as soon as the syncope had ceased; and not being properly managed, was followed by a succession of faintings, by prostration and death.—*Bibliotheque Nouv. May,* 1827.

VI. MIDWIFERY.

59. *On the Management of Collared Cases in Midwifery.*—In the Ed. Med. and Surg. for July, Mr. Wm. Smith of Bideford, has proposed a new method for the management of those cases in which the head is excluded from the vagina with the funis wound round the neck of the fœtus, which

an experience of 40 years has sanctioned as useful and important. Instead of dividing the funis, a difficult and sometimes dangerous attempt, or of endeavouring to slip the fold over the head of the child, which is often impracticable, and often followed, he believes, by permanent injury to the uterus, he proposes, that the accoucheur should first ascertain the *placental* portion of the cord, which is easily learned, because the fœtal portion is invariably tense and unyielding, while the placental portion will easily yield to extension. This being done, he should avail himself of as much of the placental portion as can be obtained, (and there is always sufficient when the collar is single,) gently to extend it to the extreme points of the shoulders. At the next pain, an ellipsis of the funis can be formed with the fingers of both hands, of sufficient size to admit the escape of the shoulders and trunk through it. Thus the delivery is easily completed—"the fundus uteri remains undisturbed, the placenta undetached, and the string unbroken. The slipping of the funis over the shoulders instead of extending it over the head, requires four inches less of extension, and hence diminishes the danger of the operation.

60. *Transfusion after Uterine Hæmorrhage.*—Mr. Douglass Fox, of Derby, mentions in the July No. of the London Med. and Phys. Jour. that he was called in April 1827, to a female greatly exhausted by uterine hæmorrhage; the fœtus, at the sixth month, being expelled, and the placenta retained by an hourglass contraction. The hæmorrhage was arrested by the introduction of the hand into the uterus, and the placenta was removed. "But, notwithstanding the hæmorrhage had now ceased, there was every reason to apprehend the immediate dissolution of the patient from extreme exhaustion, as in this stage of the complaint, she had become totally unable to articulate, to move, or to swallow; the pulse at the wrist was imperceptible, and the general appearance of the patient wore the aspect of death." Dr. Blundell's recommendation of injecting blood into the veins was now adopted. A vein was opened at the bend of the arm, into which was injected blood, from a healthy individual present. The fluid passed with facility, until a common teacup full was injected, which occupied about six minutes. The pulse now became perceptible, and in a few minutes more, the patient could move without difficulty, speak distinctly, and swallow any fluid exhibited. In ten minutes after the operation, the vital energy had so far returned, that there was every reason to anticipate a recovery: while before the transfusion, although every effort had been made to rally and support the powers of the patient, they had been uninterruptedly sinking; and consequently, this was not a resuscitation from a temporary state of fainting, but from that condition, which, in all probability, would speedily prove fatal. In three weeks the patient perfectly recovered.

61. *Resuscitation of Still-born Children.*—In the August, 1827, No. of the London Med. and Phys. Jour. Mr. J. Toogood of London has related some cases in which he has recovered infants apparently dead, after an unusual length of time. In one case no effort to respire was made for thirty-five minutes; in another, forty-five minutes elapsed; in a third, thirty minutes, and in a fourth, the mother's situation was so critical that the child was not attended to, for more than half an hour; it had been wrapped in a cloth and removed to another room. An attempt was immediately made, and in twenty-five minutes, signs of life were manifested; and in fifteen more, the child breathed freely. Mr. T. has always succeeded in resuscitating infants who were living during the birth. He puts no confidence in the warm bath, in friction, nor in pouring stimulants down the throat, but endeavours to imitate natural respiration by placing a napkin over the child's mouth, and inflating its lungs from his own mouth, pressing out the air from the chest afterwards. When a feeble attempt is made by the child

to inspire, the inflation should be made quicker; and afterwards a little aq. ammoniæ or brandy, rubbed over the palm of the hand, and held over the mouth during the inflation of air, will materially assist the recovery.

62. *Laceration of the Perineum.*—In the same Jour. Mr. C. Williams relates a case of lacerated perineum, in which sutures were employed with success. The whole of the perineum was lacerated, with the exception of the sphincter ani; the fibres of which were distinctly to be seen. Three sutures were employed. On the 9th day, two were removed; and on the 12th the third, when the union was complete.

63. *Abortion.*—At the meeting of the Section of Medicine of the Royal Academy of Medicine on the 15th of February, M. de Kergaradec, reported on the memoir of M. Costa relating to a case of abortion, accidentally occurring in an aneurismal patient, (vide p. 191, of our last number) and suggesting the propriety under certain circumstances of artificially exciting labour. The committee, through Dr. de Kergaradec, affirm "that in the present state of the science, there are no circumstances under which it would be proper, or necessary to excite abortion. Nature is most frequently adequate to the favourable completion of such desperate cases, (as occurred in M. Costa's cases,) while abortion, artificially induced, are ordinarily fatal to mother and child."—*Nouv. Biblio. April.*

We were surprised at this report of the academy, for cases have now multiplied in which artificial abortion has been resorted to, where the pelvis was so deformed that a full grown fœtus could not pass, the mother and infant having survived; the life of the former not really being endangered. (Vide p. 408 of vol. iii. of this Journal.) Whether the practice would be justifiable in patients suffering with aneurism of the heart, aorta, &c. is a question not so readily decided, and to which the report of the committee may be a suitable answer.

VII. CHEMISTRY.

64. *Chemical Nature of the Sweat.*—Dr. Anselmino has written a memoir on this subject, from which we extract the following facts:—

The insensible perspiration was found to consist of water, carbonic acid, acetic acid, and ammonia. It was collected by inserting the arm in a long glass cylinder, closed at one end, and attached to the limb at the other, by means of waxed linen, in such a manner as not to touch the cylinder. When the arm was allowed to touch the glass, the perspired matter had the odour of sweat, and contained much muriate of soda. The sweat of persons, labouring under scarlet fever, tetters, and syphilis, was not sensibly different; but Dr. A. observed, that, in puerperal women, the product of the insensible perspiration abounded in acetic acid, from which he explains the sour odour, which they exhale in the puerperal state.

One hundred parts of healthy human sweat, evaporated to dryness, were found to consist of

Matter, insoluble in water or alcohol, (principally calcareous salts,)	2	parts
Peculiar animal matter of saliva, with sulphates, . .	21	
Substance soluble in weak alcohol, (osmazome, and the muriates of soda and lime,)	48	
Substance, soluble in rectified alcohol, (osmazome, alkaline acetates, and free acetic acid,)	29	
	100	

Dr. **Anselmino** was unable to find the lactic acid, announced several years ago by **Berzelius** as the acid of perspiration, and thinks its existence in it very doubtful. On the other hand, he agrees with **Thenard** in finding the acetic acid, united with a peculiar animal matter, which he supposes to be the substance, designated by **Berzelius** as the lactic acid.

The volatile part of sweat was found to be identical with the insensible perspiration.—*Journal des Progres, &c.* vol. II., 1827.

65. *Gaseous Exhalation from the Skin.*—M. **Collard de Martigny** has given a short experimental memoir on this subject, in the Nouvelle Bibliothèque Medicale, for March last. In a short historical notice of the labours of his predecessors, he states, that the Count de **Milly** was the first to announce, that an aeriform fluid, in considerable quantities, escaped from the cutaneous surface. This experimenter considered it to be the carbonic acid, an opinion which was also held by **Cruickshank**, **Jurine**, and **Abernethy**. **Ingenhouz**, on the other hand, supported the opinion, that the air secreted by the skin is nitrogen. M. **Trousset** adopted the view of **Ingenhouz**, and published some experiments in support of it. Finally, **Priestley** and **Fontana** raised doubts as to the reality of a gaseous exhalation from the skin, and **Fourcroy** denied it altogether.

M. **Collard** next cites his own experimental results, which are not in accordance with those of the authors above mentioned. They are as follows:

1. The gaseous exhalation of the skin really exists. Frequently, during the last two years, M. **Collard** has witnessed the secretion of numerous bubbles of air from all parts of the body, when immersed in water. Several of his friends have observed the same fact.

2. This gaseous exhalation is not morbid, but takes place in a state of health.

3. In M. **Collard**, the air emitted through the pores, was, in every instance, a mixture, in variable proportions, of carbonic acid and nitrogen. No oxygen or hydrogen could be detected.

4. It is not a constant exhalation from the skin, but is sometimes entirely wanting. Hence the error of **Priestley**, **Fontana**, and **Fourcroy**, who denied the fact altogether. It is generally suspended after prolonged exercise, towards the middle of the day, or immediately after a copious repast. It is sometimes, however, difficult to assign any reason for its absence. Thus M. **Collard** has known it to be absent in warm weather, in the morning upon rising from bed, and after an abstinence of twelve hours, all which circumstances ordinarily favour its production.

5. The quantity of the gaseous exhalation is also very variable. It is always in inverse proportion to the amount of cutaneous absorption. It is generally, but moderately abundant, immediately after a meal, or violent exercise, in cold weather, or during a profuse sweat.

6. The proportion of the two gases present, varies exceedingly. Sometimes the exhalation is almost entirely formed of nitrogen, and at others, of carbonic acid. A full diet of animal food increases the relative amount of the nitrogen, while a diet of white meats or vegetables causes the carbonic acid to predominate.

M. **Collard** thinks the results he has obtained are not to be considered as favouring the ideas of **Gattoni**, **Jurine**, **Abernethy**, &c. as to the existence of a *cutaneous respiration;* since, independently of the contact of oxygen with the skin, this membrane is found to exhale a large quantity of carbonic acid.—*Nouvelle Bibliotheque Medicale, Mars,* 1827.

66. *Urinary Gravel.*—M. **Magendie** reports the case of a man of rank, addicted to the pleasures of the table, who was in the habit of eating, every morning, a plateful of sorrel. After following this usage for more than a year, severe

pains were experienced in the loins and ureters; and shortly after, a calculus was voided, six or seven lines in length, and two in width. Upon analysis, it proved to consist of oxalate of lime, nearly pure. There can be but little doubt, that the oxalic acid contained in the sorrel, determined the formation of this calculus. An effectual remedy was found in a change of diet.

In another case, obseved by M. Magendie, the urine furnished a remarkable saline deposite, mixed with hair. It occurred under two forms; first, as a fine white powder, mixed with a large quantity of small hairs; and, secondly, in white pieces of unequal and irregular form, having little consistency, and crushing between the fingers. The fragments did not separate entirely, but adhered together by means of a multitude of small hairs.

Maceration separated the hairs from both varieties of these hairy gravel, as they have been called. The hairs differed but little from ordinary hair, except in being finer, and of a gray cinder colour. The accompanying matter was phosphate of lime, united to a small quantity of phosphate of magnesia, and uric acid.

This urinary deposite, by reason of its consisting of phosphate of lime, is considered by M. Magendie, as resulting from the excessive use of animal food; and the tendency to form it was readily prevented, by prescribing an almost exclusive regimen of vegetable food and alkalies.—*Lond. Med. and Phys. Journ. May,* 1827, *from Journ of Science.*

67. *Thein, or the Peculiar Principle contained in Tea.*—M. Oudry infused 1937 grains of souchong tea in about four pints of distilled water, in which 465 grains of common salt had been previously dissolved. The infusion was continued for twenty-four hours, after which it was filtered and evaporated to dryness. The dry residue was, then, treated with alcohol, and the alcoholic solution evaporated to the consistence of a thick sirup. The alcoholic extract was treated with boiling distilled water, and the liquor filtered while yet hot. During its cooling, it became cloudy, and, at the end of twenty-four hours, deposited a reddish-brown aromatic resin, possessing a slight bitter taste.

After having again filtered the liquor, it was treated with an excess of magnesia, and boiled for a few moments. The magnesia produced a precipitate, consisting of the principle in question, which, with the excess of this earth, was separated by a new filtration.

By the action of alcohol on the precipitate, the thein was dissolved, and, by subsequent evaporation of the alcohol, it was obtained in needle-shaped crystals.

The aqueous solution, from which the magnesian precipitate had been separated, was yellow by reflected light, and red by transmitted light. By evaporation, it deposited very handsome prismatic crystals, which were identical with those obtained by means of the alcohol.

Thein, when thrown on live coals, first undergoes fusion, and leaves a charcoal, not very voluminous, and which may be totally incinerated, though with difficulty. It is soluble in from 35 to 40 parts of water at the temperature of 54½ degrees of Fahr. In alcohol, it is soluble in every proportion.

It forms salts, but its capacity of saturation is low. It gives but doubtful indications of alkalinity.

Combined with citric acid, it affords a crystallizable salt, sometimes in silky needles, at other times in elongated prisms. With sulphuric acid, it crystallizes in small needles, having the appearance of amianthus.

Thein is much more soluble in water, than the salifiable bases hitherto known. Hence it is not completely precipitated by magnesia, but remains partly in solution. M. Oudry has not determined the nature of the acid, with which the thein is, without doubt, naturally combined in the tea.

M. Oudry reserves the question for future determination, whether the medicinal properties of tea reside in the resin, or the principle which he has discovered.—*Nouvelle Bibliotheque Medicale, Mars*, 1827.

68. *Consumption of the Sulphate of Quinia in France.*—MM. Pelletier and Caventou have applied to the French Academy, to be allowed to become applicants for the Monthyon prize, in consideration of the medical improvements, which have grown out of their discovery of quinia, and its sulphate. They state, that, in consequence of their labours, the preparation of the sulphate of quinia has become a new branch of industry in France of the highest interest. To give an idea of the quantity of this sulphate, which is annually consumed, they laid before the academy a statement of the amount manufactured in two laboratories in Paris, one conducted by M. Pelletier, and the other by M. Levaillant. This document embraced the following particulars:

Cinchona bark, treated by M. Pelletier, on his own account, ...	270 quintals.*
Do. by M. Pelletier, in conjunction with M. Delondre, ...	460
Do. by M. Levaillant, for M. Delondre, .	420
Do. by M. Levaillant, for himself and various capitalists, ...	437
	1587 quintals.
This quantity of Cinchona produced, of sulphate of quinia, ...	59,000 ounces.
The other manufactories of France are estimated to furnish	31,000
Forming a total of	90,000 ounces.

Now, if we assume, that thirty-six grains is about the average quantity taken by each patient who employs this medicine, then the ninety thousand ounces may be supposed to be divided amongst one million, four hundred and forty-four thousand individuals.

MM. P. and C. add, that these details will not appear exaggerated, when it is considered, that the sulphate of quinia is employed over the whole of Europe, that it is exported to America, and that French and English commerce conveys it to the Levant and East Indies.—*Revue Medicale, May*, 1827.

M. Henry, Jun., has written to the French academy, for the purpose of requesting, that his name also may be placed on the list of candidates for the prize, founded by M. de Monthyon for important medical discoveries. He alleges, in support of his claim, that the public is indebted to him for the process, by which the sulphate of quinia is obtained very expeditiously, and in greater proportion and more economically than by the method of MM. Pelletier and Caventou.—*Archives Generales, Mars*, 1827.

The committee of the Royal Academy of Sciences of Paris, have already awarded a premium of ten thousand francs to MM. Pelletier and Caventou, for their discovery of the alkalies of the cinchona barks.

69. *Cantharides.*—M. Farines, apothecary, of Perpignan, has addressed a

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* The quintal contains about 100 pounds.

note on this insect to the French Academy of Medicine. According to him, the worm-eaten powder of cantharides is not to be rejected, but only to be regarded as less active. He finds that camphor is not sufficient to prevent the production of the insects which prey upon the cantharides, and recommends for their preservation, the unrectified pyroligneous acid.

M. **Robiquet** treated a sample of the powder of cantharides, suspected to be worm-eaten, by means of ether, in order to determine its value by extracting the cantharidin. He obtained a green oil, which probably held the cantharidin in solution; but as it is not easy to separate this principle by crystallization, unless it be present in considerable amount, he found it difficult to determine the vesicating value by this method.—*Revue Medicale, Jan.* 1827.

70. *Henry's Magnesia.*—M. **Robiquet** has remarked, that this magnesia, though soft to the touch, and in very fine powder though compact, is less soluble in acids than the ordinary French calcined magnesia. This difference depends upon the strong calcination to which the former is subjected, whereby it is probably rendered less soluble in the juices of the stomach.—*Revue Médicale, Jan.* 1827.

If we may depend upon the accuracy of the above facts, then the elaborately prepared magnesia of Dr. **Henry** is less valuable as an antacid than the ordinary calcined magnesia.

71. *Chloride of Soda.*—As this substance ranks with chloride of lime, as a disinfecting agent, and has been lately employed both in France and England, with encouraging success, as a remedy in hospital gangrene, phagedenic, syphilitic, and ill-conditioned ulcers, &c. it may be useful to give the formula of **Labarraque** for its preparation. The French weights, for greater convenience, are converted into the nearest English weights.

Take of pure carbonate of soda, ...	5½ lbs.
Distilled water, ...	22 pints.

Mix, in a bottle of such capacity, as to be one-fourth empty. Then into a glass balloon bottle, (capacity about two quarts,) with a long neck and large mouth, put the following mixture:

Chloride of Sodium, (common salt,)	1¼ lbs.
Peroxide of manganese, ...	1 lb.

Into the mouth of the balloon bottle, lute two tubes: one large and curved, communicating with a bottle containing a small quantity of water, from which a similar tube must proceed to the bottle containing the carbonate of soda; the other, an S tube, intended to afford the means of adding the sulphuric acid conveniently. The quantity of acid necessary to disengage the chlorine from the above mixture is 1¼ lbs., diluted with about a pint of water.—*Medico-Chirurgical Review, April,* 1827.

The above process merely consists in passing a stream of chlorine through a solution of carbonate of soda, until the latter is saturated. It is, however, incorrect to suppose that a solution of chloride of soda only is formed. It is well known that in this process, part of the chlorine is converted into chloric and muriatic acid, by the oxygen and hydrogen proceeding from decomposed water; and that these two acids, together with the remaining chlorine, combine severally with the alkali, so as to form, at the same time, chlorate, muriate, and chloride of soda. We may, therefore, consider the so called chloride of soda, as in reality a complex saline solution.

The above is the rationale usually given when explaining the nature of the liquid, formed by the action of chlorine on potassa, in the process for obtaining chlorate of potassa, and may be assumed as applicable to the case of soda. Nevertheless, Dr. **Granville** asserts, in a letter addressed to the Editor of the Medico-Chirurgical Review, and published in the April number of that Journal, that he has recently ascertained by experiment, that

LABARRAQUE's liquid does not contain *chloride of soda*, but is a mixture of 73.53 chloride of sodium, (muriate of soda,) and 26.47 chlorate of soda, in every 100 parts, with an excess of chlorine, equal to twice the bulk of the water employed.

Dr. GRANVILLE goes on to state, that the salts present are not the disinfecting agents; for upon being obtained in a dry state by evaporation, and redissolved in water, the remarkable properties of the liquid are lost. Hence it is evident, that the real disinfecting agent is the chlorine which it holds in solution; and simple water, containing the same proportion of chlorine, would have the same effect, though very inconvenient to the operator, on account of the escape of the gas.

Dr. G. considers LABARRAQUE's liquid as consisting of

1	Proportional, chlorate of soda,	108
5	chloride of sodium,	300

Dr. G. alleges that he has ascertained the *modus operandi* of chlorine on animal matter in a state of putrefaction, and that, during that action, new compounds are formed, which he has analyzed. He also remarks that the most economical process for obtaining the liquid of soda for disinfecting purposes, is to saturate with chlorine a solution of chloride of sodium (common salt). His views on these points will be given in detail in a memoir which he intends shortly to communicate to the Royal Society of London.

72. *Preparations of Opium, proposed by Mr. Carpenter.*—In the Philadelphia Journal of the Medical Sciences for August, 1827, Mr. CARPENTER proposes the following preparations of opium.

Denarcotized acidulous Extract of Opium.—Digest an ounce of coarsely powdered opium in a pound of sulphuric ether (sp. gr. .735) for ten days, occasionally submitting it to a moderate heat in a water bath. Distil off the ether, and add fresh portions, until it ceases to dissolve any thing, which may be known by dropping a little of the ether on a clear pane of glass, when, if the opium be exhausted, no trace will be left by the evaporation of the ether: two or three distillations will prove sufficient for this purpose. Next submit the opium thus treated to the action of rectified spirits, eight ounces; strong acetic acid, one ounce; and water, seven ounces, and digest for seven days. Lastly, filter and evaporate, in a water bath, to the consistence of an extract.

Mr. CARPENTER very correctly considers this extract as an impure acetate of morphia. He states that an ounce of the best Turkey opium, when subjected to the above treatment, yields six drachms of extract. It may be converted into laudanum, by assuming six drachms as equivalent to an ounce of opium.

Denarcotized Acidulous Tincture of Opium.—Digest an ounce of coarsely powdered opium for ten days, in a pint of sulphuric ether, (sp. gr. .735) assisting its action, occasionally, by a moderate heat, and continue the digestion, so long as any thing is dissolved. Dry the portion not acted on by the ether; and digest it for seven days in rectified spirits, eight ounces; strong acetic acid, two ounces; water, six ounces; and filter.

This preparation is proposed by Mr. CARPENTER as a substitute for the black drop, which, from the loose directions given for its preparation, is of very uncertain strength.

The preparations, above mentioned, may be procured in this city from Mr. CHARLES MARSHALL, Druggist, No. 221, Market street.

Mr. CARPENTER criticises Mr. ROBIQUET for recommending to make a thin aqueous extract of opium for the purpose of digesting it in ether, in order to separate the narcotin, instead of acting on the shaved or powdered opium directly. But if Mr. C. examines this subject, he will find that Mr.

Robiquet's object was to free the watery extract of opium, a preparation much used in France, from narcotin. Accordingly, the name of this preparation is *Extractum opii, narcotina privatum*, as given by **Magendie**. It, therefore, appears that **Robiquet's** object in making the preliminary or watery extract, was not to facilitate the action of the ether, but to form a denarcotized opium, free from *feculencies*.

Mr. **Carpenter** says,

"It is stated that highly rectified ether is the only menstruum for the solution of narcotin. If this is the fact, I cannot understand how laudanum contains this principle, when its menstruum is nothing stronger than proof spirits, and that nearly saturated with the gummy, resinous, and other soluble matters of opium."

We have not been able to find any authority for the statement, that highly rectified ether is the *only* menstruum for narcotin. It is, indeed, true, that some writers say, that it is scarcely or but slightly soluble in alcohol: but those who give its properties with most precision, state that it is soluble in 24 parts of boiling alcohol. It is stated by Dr. **Duncan** to be soluble in 400 parts of boiling water; and it would seem to be soluble even in cold water, when in connexion with the other ingredients of opium; since the extract of opium, made with cold water, is found to contain a small portion of narcotin. Besides, it may be added, that both **Sertuerner** and **Robiquet** employ boiling alcohol as a solvent of narcotin, in their processes for obtaining it in a pure state. Hence, therefore, all that can be correctly asserted respecting ether is, that it furnishes the *best* solvent for narcotin; but as both water and alcohol, under favourable circumstances, are capable of dissolving it, we must not be surprised that laudanum contains this principle in abundance.

73. *New Mode of obtaining Meconic Acid. By Dr. Hare, Professor of Chemistry in the University of Pennsylvania.*—Add a solution of acetate of lead to an aqueous solution of opium. A double decomposition will ensue between the meconate of morphia of the opium, and the acetate, resulting in the formation of meconate of lead, which will precipitate. Subject the precipitate to the action of a stream of sulphuretted hydrogen, whereby the lead will be precipitated, and the meconic acid liberated. The solution of the acid is of an amber colour, and furnishes crystals, by evaporation, of the same hue.—*Philadelphia Journal of the Medical and Physical Sciences, May*, 1827.

MISCELLANEOUS ARTICLES.

We are happy to learn that **Samuel Jackson**, M. D. has, at the solicitation of Professor **Chapman**, been appointed Assistant Lecturer on the Institutes of Medicine, in the University of Pennsylvania. The lovers of medical science will rejoice in the prospect of advantages to accrue from a public exercise of the distinguished talents of this gentleman, in a department so long neglected in that Institution. Dr. Chapman will now give his attention wholly to the Practice, and to Clinical Medicine.

The Lectures in the Philadelphia College of Pharmacy will commence early in November.

Dr. George B. Wood, on Chemistry.
Dr. Benjamin Ellis, on Materia Medica and Pharmacy.

Dr. Nathan Smith of this city, has been elected Professor of Surgery in the Medical College at Baltimore.

Our cotemporary, The Philadelphia Journal of the Medical and Physical Sciences, is to appear in a new form in November next. It will be called The American Journal of the Medical Sciences.

John E. Cooke, M. D. of Winchester, Virginia, has been elected Professor of the Theory and Practice of Medicine in Transylvania University. Dr. Cooke has in press a new work on the Practice of Medicine.

Professor Scarpa.—We rejoice to learn that this distinguished Anatomist and Pathological Surgeon yet lives, contrary to the report of some Journalists, and that he is publishing a new work under the title—"De Anatome et Pathologia Ossium Commentarii," with six plates. Vide Ed. Med. and Surg. Jour. for July; containing an extract of a letter to Mr. Wishart, dated Pavia, May 21, 1827.

Andrew Vacca Berlinghieri, born in 1772, at Pisa, in Italy, a distinguished Surgical author and practitioner, died on the 7th of September, 1826.—"He found the surgery of his own country in its infancy, he left it in a most flourishing condition. The writings which he has left, and the beautiful inventions with which he has enriched science, are imperishable monuments which he has himself erected to his own glory."—*Journal des Progres, &c.*

On the first of May, 1827, M. Pariset delivered before the Royal Academy of Medicine, an historical eulogium on the celebrated Pinel. This distinguished physician was born on the 11th of April, 1745, was honoured with the title of Dr. in Medicine in 1773, when twenty-nine years of age. He was the author of a Traité Medico-Philosophique sur l'Aliénation Mentale; of the "Nosographie Philosophique, ou Methode de l'Analyse appliquée à la Médicine;" of "La Médicine Clinique," &c. &c. He was a member of the French Institute, Physician in chief of the Salpêtrière, Professor of the First Medical School, and, finally, in the Faculty of Medicine in Paris. In 1823, Pinel had an attack of apoplexy—he however survived until the 26th of October, 1826; the latter portion of his life being spent amidst infirmities and disease.

Mr. Shaw, Surgeon of Middlesex Hospital, London, author of a Manual of Anatomy, of several works on spinal distortions, and of numerous papers on the nerves, and other subjects, all indicating talent and industry, died on the 19th of July last, at the early age of thirty-six years.

M. Cullerier, Surgeon in chief of the Venereal Hospital, honorary member of the Royal Academy of Medicine, and former President of the Society of Medicine, &c., died in Paris, on the 3d of January, 1827, in his 69th year.

Dr. Drake, of Cincinnati, has announced his intention of establishing and superintending an Infirmary for Diseases of the Eye in that city. Dr. D. is misinformed respecting the origin of "*The Pennsylvania Infirmary for Diseases of the Eye and Ear*," in Philadelphia. This institution owes its foundation to the suggestion of Dr. Gibson; in conformity with which, in in the year 1822, the requisite number of subscribers having appointed a board of Managers, these gentlemen made the following nominations:

Consulting Surgeons.

Dr. Physick, Dr. Gibson.

Attending Surgeons.

Geo. B. Wood, M. D., Isaac Hays, M. D., John Bell, M. D., Robert E. Griffith, M. D.

Dr. Wood having since resigned, Dr. Darrach was elected to supply the vacancy.

At the session of the Royal Institute on the 28th of May, the prizes, founded by M. De Monthyon, were distributed.

One of 10,000 francs was awarded to M. M. Pelletier and Caventou for the discovery of the Sulphate of Quinine.

Another of 10,000 francs to M. Civiale, for having first performed the operation of Lithontrity on the living subject, and for the successful issue of many of his operations.

A medal of 5000 francs, for the second edition of Laennec's work—"*De l'Auscultation Médiate.*"

To M. Le Roy d'Etiolles, one of 2000 francs, for his Exposé des divers procedés pour guerir de la Pierre, &c. (Vide notice in our last number.)

Other medals of the value of 1500 francs each, were granted to M. Henri, for improving the means of preparing the Sulphate of Quinine so as to diminish its commercial value; to M. Bailly, for his treatise on the Brain and its Membranes; to M. Bretonneau, for his treatise on Inflammations of Mucous tissues; to M. Gendrin for his Anatomical History of Inflammations; to M. Ollivier, for his treatise on the Spine and its Diseases; to M. Rostan, for his work on Clinical Medicine, &c.; and finally, a medal of 1000 francs to M. Rochoux, for his Researches on the Yellow Fever.

Towar & Hogan have in press a new work, entitled "The Eclectic Dispensatory, containing a Synopsis of Pharmacy and Materia Medica, both American and Foreign: the Formulæ of the London, Edinburgh and Dublin Colleges, with many of those of the most celebrated Physicians, of this and the last century; and also of the most common Empirical Medicines: with a variety of other knowledge relating immediately to the exhibition and preparation of Medicines, collated from the best authorities."

Dr. C. D. Meigs will publish early in the next summer, a volume of Physiological Essays.

The *Journal De Naples*, of June 19, gives the following details as to the statistics of that town: On Jan. 1, 1826, the population of Naples was 351,754; 167,175 were males, 187,028 females, not including the garrison and foreigners. Since last year the population has increased 2,449. The births in the course of the year were 14,932, of which 7,573 were boys, and 7,416 girls, being on the whole 179 births less than the preceding year. 1,875 children were abandoned, 1,362 of them being Neapolitans, and 513 in the provinces. There were 30 pair of twins--in 21 instances both the children were males, and in 28 both were females. There was one example of three children at a birth, one being a boy, and the other two girls. The proportion of births to the whole population was as one to 23 3-5ths. The number of deaths was 12,540; 6,671 were males, 5,869 females, or about 34 deaths per day. There were 330 sudden deaths, and 13 suicides. Eleven persons died upwards of 100 years old, 93 were between 80 and 100. The proportion of deaths to the whole population was as 1 to 28¼. The number of marriages in 1826, was 3,210; 443 widowers, and 474 widows married again. The proportion of marriages to the whole population is as 1 to 110 2-5ths, and the births as 1 to 4 7-10ths.

Periodical Literature of France and England. The following particulars, on the periodical literature of France and England, are from the *Revue Encyclopédique.* Those relating to the French press were read in the chamber of Peers at the time of the discussion on the liberty of the Press; those relating to England appeared in the *Revue* for December last, and were furnished by M. De George, a valuable contributor to this excellent work. Both articles appear to us very interesting; and, from their contents, we find the periodical publications of the two countries to be more on a par, as to number, than we should have supposed, there appearing, during the present year, in Paris, 178, and in London 176 periodicals.

Periodicals published in Paris, in	1822 &	1827
On Religious Subjects	2	12
Daily Political Papers	11	12
Political Papers, (published twice a week)	5	5
Advertising Papers, &c. (*affiches*)	2	12
Theatrical Reviews and Announcements	5	9
On Bibliography	4	4
On Trade, Finances, &c.	2	10
On the Law	12	20
On Administration	6	7
Medical	13	22
On Music	8	5
Miscellaneous (on the Arts, Sciences, and Literature)	9	19
On Education	2	6
On Fashion	2	3
On Military Subjects	1	3
On History	2	4
On the Arts and Sciences (exclusively)	16	28
Total	102	178

Periodicals published in London, in Dec. 1826.

On Politics	Daily	12	35
	Three times a Week	5	
	Weekly	18	
Quarterly	Natural Sciences, &c.	5	26
	Religion, &c.	9	
	Literature and Fine Arts	12	
Monthly	Natural Sciences	17	88
	Religion, &c.	44	
	Literature, &c.	27	
Daily	Natural Sciences	7	27
	Religion, &c.	6	
	Literature and Fine Arts	14	
	Total		176

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